DOCUMENT RESUME

ED 244 497 EC 162 817

TITLE	Special Education Planning Process and Projection Manual. Final Report, Phases III, IV, V. [and] Special Education Planning Model User Guide.
INSTITUTION	Management Analysis Center, Inc., Palo Alto, Calif.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE	1 Sep 78
CONTRACT	300-76-0117
NOTE	147p.
PUB TYPE	Reports - Evaluative/Feasibility (142) -- Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	Computer Software; Decision Making; *Disabilities; Elementary Secondary Education; Models; *Program Development; *Simulation; *Special Education
IDENTIFIERS	*Special Education Planning Model

ABSTRACT

The report describes activities and results of the second year of the Special Education Planning Model (SEPM), designed to help planners and policymakers estimate special education program needs and costs. SEPM uses a computer simulation based on users' assumptions and priorities in such areas as incidence rates, handicapping conditions to be served, services to be offered, program standards for the services, and costs of resources. The model was tested in 26 states. A users' guide outlines input steps and the data preparation procedures for six planning steps on the following topics: total student population, special education population, instructional programs, student placement patterns, and specific and nonspecific related services. Guidelines are further offered for understanding the reports and using the projections to make policy and planning decisions. (CL)

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SPECIAL EDUCATION PLANNING PROCESS AND PROJECTION MODEL
CONTRACT #300-76-0117

FINAL REPORT - PHASES III, IV, V

September 1, 1978

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EC162817

Preface

This final report summarizes the activities and results of the second year (Phases III, IV, V) of the Special Education Planning Model) SEPM project (#300-76-0117). It supplements the Progress Report submitted in February 1977 for the first year (Phases I, II) of the project.

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I. History of Project

This project was originally proposed October 1975 in response to a Request for Field Initiated studies. The Abstract of that proposal stated:

> The purpose of this project is to research, develop, field test, and disseminate a planning tool to assist policy makers and planners estimate special education program needs and project the costs required to meet these needs. Products will be a structured process which allows the planners to describe their total state special education program both currently and for desired or anticipated future program changes. A computerized projection model will be employed to calculate and project number of children to be served, services to be offered, personnel and other resources required, and the resultant costs. The projection model will also allow the user to investigate the impact of alternative patterns of service delivery. . . .
>
> The projection model will utilize a computer simulation for ease and speed of computation, but will be specifically designed for use by persons without formal computer training. While the planning process and the projection model will not make decisions for policy makers and planners, they will aid them by asking the relevant planning questions and by rapidly computing and presenting to them the results of their assumptions or decisions. . .
>
> Specifically, in the planning process the users will be asked a series of questions which will require them to provide some data, select certain assumptions, and make a series of decisions concerning special education. These users will input their own assumptions and priorities in areas such as incidence rates, handicapping conditions to be served, services to be offered, program standards for the various services, and costs of resources. A set of "fill-in-the-blank" forms complete with instructions will be used to direct the input process. The forms will be simple and easy to complete.

Three years later, it may be stated that the full purpose and benefits of the proposal have been realized.

On August 2, 1976, the contract for the first year of the project was approved. The first year of funding included Phases I and II of the project, the "Design and Development" and "Additional Field Testing" phases. During that first year, the planning process was refined and the supporting computer program was designed. The planning process and projection model were introduced to five states (Pennsylvania, Florida, California, Arkansas, Idaho) and one large school district (San Diego Unified) by means of a user conference and site visits. User reaction was enthusiastic and the Progress Report (February 25, 1977) for the first year summarized the project's success as follows:

> In sum, the projection model has proved itself to be a versatile, practical aid to decision-makers, far surpassing our original expectations regarding its flexibility. Developing the input assumptions has been found to be somewhat harder than anticipated because planners' time has been all too often consumed by reacting to present developments rather than guiding future efforts. The project has provided an opportunity for special education staff as well as representatives of other agencies to get together to discuss, in a focused manner, where they are heading and how they can best attain their objectives.

On August 9, 1977, the contract for the second year of the project was approved. Included in the second year were the "Documentation," "Dissemination," and "State Projections" phases of the project. The original work plan was reduced in scope by the elimination of some interaction with BEH (conferences and reports) and by the elimination of seven states. Later, three states were added to bring the authorized number to 26. Paticipating states included: Alaska, Arizona, Delaware, District of Columbia, Georgia, Hawaii, Iowa, Louisiana, Maine, Massa-

chusetts, Michigan, Minnesota, Mississippi, Nebraska, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, Vermont, Washington, West Virginia, and Wisconsin.

In addition to ongoing efforts with the first group of participants, the second year of the project began with an intensive effort to inform states of the availability of SEPM. A brochure was prepared and mailed to approximately eight representatives from each of the states and territories that had not been part of the effort in the first year. In addition, a presentation was made at the NASDSE meeting in Costa Mesa in September 1977.

Over 35 states volunteered to participate in the project. BEH and MAC selected 26 from this list. Representatives from the states were convened for a series of one-day user workshops held in Portland, Minneapolis, Boston, and New Orleans.

Following the workshops, 25 of the 26 states submitted data which were verified by MAC staff. Projections were generated and sent to the states for review and revision. Once satisfactory data were developed, MAC staff visited each state to explain the projections and their policy implications. Typically, states chose to either revise their assumptions or to generate projections using alternative assumptions. These additional projections were then mailed to the states with written comments.

All materials used in the project have been packaged and are now available for purchase at cost by both participating and non-participating agencies. The package is self-contained: it has been designed for installation and use without the need for intervention by MAC.

All the approved work steps were completed by September 1978. Copies of the basic material are being forwarded with this report to BEH.

II. Description of SEPM

The Special Education Planning Model (SEPM) is a systematic process for estimating the needs and costs of special education. It has been developed to assist state and local education agencies plan for their future special education programs.

The SEPM planning process establishes a framework for gathering, ordering, and analyzing relevant information related to the total special education program. Users are asked to provide data on their current programs and to make assumptions and decisions concerning their anticipated program offerings. Since educational agencies vary in their approaches to serving handicapped children and in the laws and regulations under which they operate, users tailor SEPM to their individual states. This is done by specifying all key data inputs, such as handicapping conditions, incidence rates, programs and services to be offered, costs of educational resources, student-personnel ratios, and the length of the planning period. Furthermore, the data gathering format is designed to allow incorporation of planned or considered program changes, such as additional programs or services, different staffing patterns, or new groupings of children.

SEPM then generates a series of multi-year projections of an agency's expected future special education program. The projections are annual estimates—both by category of student and type of program—of:

- Number of special education students served and unserved
- Number of instructional personnel required
- Costs of serving special education students
- Number of students served, personnel requirements, and costs for related services.

SEPM allows users to estimate quickly and accurately the effects of varying assumptions regarding programs and costs. It pemits users to assess the results of continuing current policies and practices and to evaluate changes that would result from new or modified programs. "What if" questions can be explored. For example: What if the average size of self-contained classrooms for handicapped students were lowered (or raised) by two students per class? What if more mildly handicapped students could be served in a resource room program rather than in a self-contained class? What if an instructional aide were added to certain programs and the average student-teacher ratio were increased by ten? These and many other potential program changes can be projected with SEPM.

The essence of policy analysis is the comparison of alternative approaches. SEPM was designed to facilitate such efforts. The alternatives may be either large (e.g., introduction of a new instructional program) or small (e.g., a decrease in the student/teacher ratio in special classes by 1). Use of SEPM in this fashion will allow a planner to approximate and analyze the effects of potential program changes prior to their implementation. For example, the cost of a proposal to have an instructional aide in every special classroom could be estimated by running the model both without an aide and with an aide in the special classroom, and then comparing the projected costs for the two runs. The projections in the "with aide" run would also indicate the number of aides that would be required to staff the classrooms.

As a tool for policy analysis, the greatest value of SEPM comes from two primary uses:

1. Improving and refining the basic assumptions regarding future special education programs.
2. Comparing alternative programs and answering "what if" questions.

Rarely will the first set of projections developed be sufficient for policy analysis. States using SEPM have invariably found that their initial projections needed modifications. Sometimes the assumptions proved to be unrealistic and required revision. In other cases, the results represented more of a dream than a practical plan for special education. An example might be a case in which total program costs were initially shown to triple in two years, which would be beyond both state and local fiscal capability.

Additionally, some of the data which are input into SEPM may be more reliable than others. For example, one may have confidence in the accuracy of the beginning number of students served (based on recent child count information), but may have much less confidence in the placement pattern of students five years into the future. In this case, it may be desirable to try several different placement patterns to see what impact the changes from the initial assumptions would have. The placement pattern that seems most realistic could then be selected.

In short, development of appropriate projections for planning will probably require several iterations as the data and assumptions are made successively more realistic and accurate.

States have derived the greatest benefit from SEPM by going beyond a single set of projections. The use of SEPM to simulate different approaches or program changes has permitted testing of the probable impacts of these alternatives in terms of students to be served, personnel requirements, and costs.

III. Work Product

The 30 agencies in which SEPM has been implemented have all received a minimum of one iteration of a long-range plan. Many agencies have gone through five to ten iterations. The projections have been used for a number of purposes as described in the previous section. In principle, the states should update their base plans periodically and, ideally, should use the model every time they are considering a revision to their program assumptions. Several states have in fact requested the complete SEPM package for installation of their own computer systems. It is expected that more will follow once they are informed of its availability and the cost ($45). In addition, non-participating agencies may also wish to purchase the package and install it using the detailed instructions that accompany the package.

The package includes four major components. Each is described below:

1. **User Manual**

   The user manual contains a description of the process and model, a discussion of the necessary inputs, the step-by-step procedure for filling out the input worksheets, a description of the projections, and a discussion relating to the policy issues implicit in the projections. Projections may be developed for instructional programs alone or for instructional programs and related services using one or more age groups.

2. **Input Worksheets**

   The worksheets are used to develop the inputs that will be used in the generation of SEPM projections. One or several age groupings may be used. Each grouping requires a separate set of input worksheets.

3. **Computer Documentation**

The computer documentation comprises a description of the computer program, the format needed for the input data, a complete listing of the program's source code, instructions for installing the program on another computer system, and descriptive flow charts. This is primarily a technical document, although the chart of the program's structure may be understood by people without computer experience.

4. **Computer Tape**

The tape contains five elements:

1. SEPM-INSTALL (installation instructions)
2. SEPM-INPUT (the input format)
3. SEAPLAN-DATA (the sample data set)
4. SEAPLAN-OUTPUT (the sample projections)
5. SEPM-SOURCE (the source code for the program)

A letter will be sent to all state directors of special education announcing the availability of the package. In addition, the contact people in the SEPM project states will be informed. Letters will also go to NASDSE and CEC. A project description has already been sent to BEH for inclusion in its marketing program.

SPECIAL EDUCATION PLANNING MODEL

USER GUIDE

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September, 1978

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I. INTRODUCTION TO SEPM

BACKGROUND

Since the educational requirements of children with handicapping conditions are often so varied and complex, planning future special education programs is a difficult task. Every year, new methods of providing service to handicapped children are being implemented, and more handicapped students are becoming involved in the mainstream of public education. The numbers of students, services, and trained personnel needed to staff special programs, with their resultant impact on program costs, must be known in order to plan effectively. The Special Education Planning Model (SEPM) is designed to help planners organize, understand, and project these critical factors.

SEPM was funded in June 1976 under a contract with the Bureau of Education for the Handicapped, U.S. Office of Education. During the first year of the project, five states and one large school district participated in field testing SEPM. These educational agencies—Arkansas, California, Florida, Idaho, Pennsylvania, and San Diego Unified School District—used SEPM to develop sets of projections showing numbers of students and personnel, types of services, and costs for their future special education programs. In some of the states, multiple sets of projections were developed in order to show the impact of different program alternatives. Although each of the test sites had different ways of planning their programs, SEPM was adapted so as to provide projections which were useful to each situation.

Following the field testing, SEPM was refined: the input process materials were revised and improvements were made in the computer program to accommodate a wider range of different planning strategies. The second year of the project involved a widespread dissemination effort with the participation of 26 additional states, including Alaska, Arizona, Delaware, District of Columbia, Georgia, Hawaii, Iowa, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Nebraska, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Texas, Vermont, Washington, West Virginia and Wisconsin.

WHAT IS SEPM?

The Special Education Planning Model is a systematic process for estimating the needs and costs of special education. It has been developed to assist state and local education agencies plan for their future special education programs.

The SEPM planning process provides a framework for gathering, ordering, and analyzing relevant information related to the total special education program. Users are asked to provide data on their current programs and to make assumptions and decisions concerning their anticipated program offerings. Since educational agencies vary in their approaches to serving handicapped children and in the laws and regulations under which they operate, users tailor SEPM to their individual situations. This is done by specifying all key data inputs, such as handicapping conditions, incidence rates, programs and services to be offered, costs of educational resources, student-personnel ratios, and the length of the planning period. In addition, the data gathering format is designed to allow incorporation of planned or considered program changes, such as additional programs or services, different staffing patterns, or new groupings of children.

SEPM then generates a series of multi-year projections of an agency's expected future special education program. The projections are annual estimates—both by category of student and type of program—of:

- Number of special education students served and unserved
- Number of instructional personnel required
- Costs of serving special education students
- Number of students served, personnel requirements, and costs for related services

The relationship between the input data requirements and the output projections is illustrated diagrammatically in Figure 1 below.

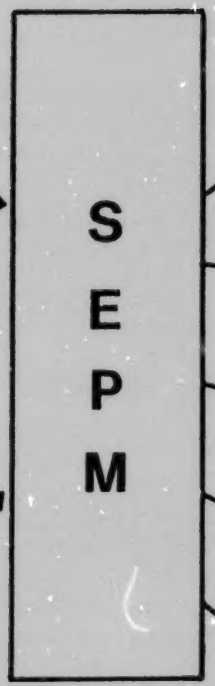
INPUT DATA

INSTRUCTIONAL PROGRAMS

- Total Student Population
- Classification Categories
- Incidence Rates
- Beginning Number of Students Served
- Full Service Year
- Student Phase-In Pattern
- Types of Programs
- Resources for Each Program
- Prices of Resources
- Student Placement Patterns
- Number of Students Served per Program Unit

RELATED SERVICES

- Types of Services
- Resources for Each Service
- Prices for Resources
- Service Levels
- Timing and Phase-In Pattern



PROJECTIONS

SPECIAL EDUCATION STUDENTS

- By Classification Category
- By Instructional Program
- By Instructional Program for Each Classification
- By Instructional Program and Classification for Each Year

PERSONNEL

- By Classification Category
- By Instructional Program

COSTS

- By Classification Category
- By Instructional Program
- (both in current and inflated dollars)

SUMMARY

Students, Personnel, and Costs of Instructional Programs

- By Classification Category
- By Instructional Program

RELATED SERVICES

Students, Personnel, and Costs for Each Related Service

SEPM allows users to estimate quickly and accurately the effects of varying assumptions regarding programs and costs. It permits users to assess the results of continuing current policies and practices and to evaluate changes that would result from new or modified programs. "What if" questions can be explored. For example: What if the average size of self-contained classrooms for handicapped students were lowered (or raised) by two students per class? What if more mildly handicapped students could be served in a resource room program rather than in a self-contained class? What if an instructional aide were added to certain programs and the average student-teacher ratio were increased by ten? These and many other potential program changes can be projected with SEPM. In Section VI, Using the Projections, this capability of SEPM is discussed in detail.

SEPM enables planners and policy makers in special education to foresee the impact of educational and financial decisions prior to their implementation. It provides a means of exploring and comparing alternative approaches to reaching the goal of providing an appropriate education for all handicapped children.

II. HOW TO PROCEED

INPUT STEPS

The SEPM planning process has been divided into six steps. For each step there is a corresponding worksheet to record the information or assumptions required. The worksheets are then used to create the data set that will be input to the SEPM program.

Each step consists of three parts:

1. Discussion

   Each of the data elements needed for the model is discussed in detail. Some of these data may be readily obtainable, such as total numbers of school age children. For other information, such as incidence of handicapping conditions, it may be necessary to make "best guesses." When filling out the worksheets, use the best information available, but keep in mind that any of the data and assumptions may be changed to generate subsequent sets of projections after the first set has been analyzed.

2. Directions

   After the discussion of each step, there are specific directions for completing the corresponding worksheets. Two sets of blank worksheets are provided. It may be necessary to make extra copies of these blank worksheets for alternative assumptions, for subsequent revisions, and/or to record data for more than one age group.

3. Example

   Following the directions for completing the worksheets, there are sample filled-in worksheets corresponding to each step. The data on the samples pertain to a hypothetical state and represent one possible plan, called SEA PLAN. The worksheets are examples only and are not intended to suggest any particular program or cost data. The projections that are generated by these worksheets are later shown in Section V, Understanding the Reports.

DATA PREPARATION PROCEDURE

Based on the experience developed in earlier stages of the SEPM project, the following procedure is recommended for preparing the data:

1. Determine who will have both primary and secondary responsibilities for coordinating the necessary data and assumptions. Primary responsibility has typically been maintained by the special education director or a staff assistant. Secondary responsibility has been shared by such people as the Title VI-B coordinator, the MIS director, finance and budget officers, and program coordinators.

2. Gather the necessary documentation. Actual data gathering has not proven to be complex or time consuming. The documents required may include: the Annual Program Plan, special education enrollment reports, administrative regulations and guidelines, state plans, summary financial reports, and child count data.

3. If the student population is to be subdivided into more than one age group, select <u>one</u> age group with which to begin and follow that same age group through <u>all</u> the steps before proceeding to a second or third age group. Prepare a separate set of worksheets for <u>each</u> age group selected. Identify each set of worksheets by date and number on the cover sheet of the set.

4. Using one set of blank worksheets, complete each worksheet after reading the discussion and directions for the corresponding step. If possible, keep the set of worksheets intact to avoid confusion; however, a set may be split apart if separate individuals are preparing different worksheets in the set.

5. Only one set of assumptions may be submitted on a single worksheet. To make revisions or substitute alternatives, fill out new worksheets for each change desired. Then complete separate cover sheets, giving each new input worksheet or set of worksheets an identifying number (Input Set #).

6. It is necessary to complete all elements on Worksheet 1 through Worksheet 4 in order to obtain projections. Worksheets 5 and 6 are optional; either or both may be completed, filled in at a later time, or omitted altogether.

7. Complete all sections on all the required worksheets. The program cannot run with missing data or assumptions. If data are not available, take a best guess; the model can be rerun again with new data.

III. DEVELOPING INPUTS FOR INSTRUCTIONAL PROGRAMS

STEP 1 TOTAL STUDENT POPULATION

The first step is to collect information on the state's total student population. This information includes the age group or groups for which projections are desired, the years to be included in the planning period, and population estimates for each year.

Age Group

A set of projections will represent one age group. This age group may consist of all ages, school age only, preschool only, or any other age grouping. More than one age group may be chosen, but each different age group will require a separate set of input worksheets and will result in a separate set of projections. Below is a list of age groups which have been used. These may be separated, combined in other ways (for example, school age may be divided into elementary and secondary groups), or modified to fit the state's specific age ranges.

School Age

Generally included in this age range are children from age 6 through age 17, although in some states the range may start with age 5 and extend to age 18.

Preschool Age

State law or regulations usually specify ages of children eligible for service in this group; generally it includes ages 3 through 5.

Postschool Age

This group includes individuals who are past the age of high school graduation. The range is usually from age 18 through 21, but may go higher in some states.

Below Preschool Age

Some states distinguish another group eligible for educational services—children from birth through age 2—as distinct from the preschool group.

Planning Period

In this first step, users select a planning period—the years for which projections are desired. Choose a base year or beginning year as a starting point; the beginning year of the planning period should be that for which the most data on children receiving special education are available. This will usually be the prior year or the current year. Choose an ending year which seems realistic for planning. Up to ten years may be included in the planning period.

Population Estimates

For each age group chosen, SEPM requires population estimates of the total number of children (both handicapped and non-handicapped) in that age group. Population figures are required for each year in the planning period and will include actual numbers for prior or current years and estimates for future years. Either total population (children both in school and out of school) for a single age group or, in the case of school age groups, school enrollments may be used. If school enrollment data are used, be sure to include numbers of children in other public and private agency programs as well. (These population estimates will be used later in conjunction with estimated incidence rates to project the special education population; therefore the population bases for both the total number of children and the incidence rates must be consistent.)

Frequently, the state department of education has available the necessary population estimates. If not, census sources can often provide these data. Other sources may be population studies done by state agencies or businesses.

Inflation Rate

SEPM automatically calculates future costs in constant dollars and can also calculate total costs in inflated dollars. If a calculation in inflated dollars is desired, an annual rate of inflation should be selected.

To Complete the Cover Sheet:

Complete a separate cover sheet to accompany each set of worksheets.

1. In the space marked AGE GROUP, enter the name of the age group to which the data on this set of worksheets apply. Prepare a separate set of worksheets and a separate cover sheet for each age group.

2. In the space marked INPUT SET #, enter a designation representing this specific set of worksheets.

3. In the space marked DATE SUBMITTED, enter the date this set of worksheets was submitted for input.

To Complete Worksheet 1:

1. In the column headed YEARS IN PLANNING PERIOD, write in each year of the planning period. Use school years (e.g., 1977-1978, 1978-1979).

2. In the column headed TOTAL STUDENT POPULATION, enter the total numbers of children (both handicapped and non-handicapped) estimated for each school year in the planning period.

3. In the box marked ANNUAL RATE OF INFLATION, enter a percentage to be used as the price inflation rate.

COVER SHEET

SPECIAL EDUCATION PLANNING MODEL (SEPM)

STATE SEA PLAN

INPUT SET # 1

AGE GROUP SCHOOL AGE

DATE SUBMITTED 11/18/77

Prepare a separate set of worksheets for each age group. If this is a revision of a previous submission, complete a separate cover sheet and attach it to the revised worksheets.

WORKSHEET 1: TOTAL STUDENT POPULATION

YEARS IN PLANNING PERIOD (Up to 10 years)	TOTAL STUDENT POPULATION
1. 19 76 -- 19 77	2,000,000
2. 19 77 -- 19 78	1,980,000
3. 19 78 -- 19 79	1,940,000
4. 19 79 -- 19 80	1,880,000
5. 19 80 -- 19 81	1,840,000
6. 19 ___ -- 19 ___	
7. 19 ___ -- 19 ___	
8. 19 ___ -- 19 ___	
9. 19 ___ -- 19 ___	
10. 19 ___ -- 19 ___	

ANNUAL RATE OF PRICE INFLATION TO BE ASSUMED:

6 %

Note: In subsequent forms, use the first year as the designation for the school year (e.g., '80 for '80-'81).

STEP 2: SPECIAL EDUCATION POPULATION

In this step information is collected on the types of children requiring special education and on the numbers of students who are receiving special education services.

Classification Categories

The classification categories used to identify those children who are eligible for special education are selected. Any system of classification categories may be used. While many states have de-emphasized traditional medical or disability categories, these may still be used for reporting and planning purposes. Some states may wish to use non-traditional categories, ones that refer more directly to educational programming. The choice of classification categories is up to the planner but should be appropriate to the needs of the state. SEPM will accept any configuration, as long as there is not an overlap which would result in double counting of children; that is, each child should be assigned to only one category. The categories chosen will be used throughout the planning period for a given set of projections.

Classification categories may be different for different age groups. There are generally fewer types of handicapping conditions in preschool and postschool age populations for which services are provided; in some instances, a separate classification system may be more appropriate for these groups.

The following are examples of different kinds of classification systems:

- A traditional system for classifying handicapped children, such as the one used for current federal reporting requirements:

1. Mentally Retarded
2. Hard of Hearing
3. Deaf
4. Speech Impaired
5. Visually Handicapped
6. Seriously Emotionally Disturbed
7. Orthopedically Impaired
8. Other Health Impaired
9. Deaf-Blind
10. Multi-Handicapped
11. Specific Learning Disability

- An educational classification system, such as that specified in the California Master Plan for Special Education which consists of four program/classifications:

  1. Communicatively Handicapped

     Students who are deaf, deaf-blind, severely hard of hearing, severely language handicapped (including aphasic), and language and speech handicapped.

  2. Physically Handicapped

     Students who are blind, partially seeing, orthopedically handicapped, and other health impaired.

  3. Learning Handicapped

     Students who have learning disabilities and behavior disorders, and those who are educationally retarded (EMR).

  4. Severely Handicapped

     Students who are developmentally handicapped, moderately mentally retarded (TMR), autistic, and seriously emotionally disturbed.

- Other states have employed a system which classifies students according to the severity of their learning needs or the educational arrangements by which they receive instruction.

  1. Mainstream

     Students in regular classrooms served through consulting teachers or by speech and language services only.

  2. Mild

     Students in regular classrooms receiving special education assistance in resource rooms.

  3. Moderate

     Students requiring full time special classes.

4. Severe

Students requiring intensive services, often residential.

Incidence Rate

In order to make projections of the numbers of children to be served by special education, it is necessary to estimate the rate of occurrence of those children with special education needs. This estimate is usually expressed as an incidence rate, which is an expected percentage of children with the handicap or special need in the total population within a specific age group (e.g., the percentage of deaf children in the school age group).

In planning, it would be ideal if incidence rates were actual reflections of occurrence. However, estimates of incidence are generally not based on empirical data, as few census data are available. With the exception of some of the more obvious disabilities, such as blindness or orthopedic handicaps, planners must rely on professional judgment to make estimates of incidence rates.

One method of establishing incidence rates is to use the actual number of handicapped students served, plus those identified but unserved, as a base. These are the known numbers of students. Add to this the numbers of children that are as yet unidentified, but who are thought to be in need of special education. Then divide this total estimated number by the total population number on Worksheet 1. This must be done for each category to arrive at an incidence rate for each category. An example:

Category	Served	Identified Unserved	Unidentified	Total Estimate
EMR	28,000	8,000	4,000	40,000

Total population (from Worksheet 1): 2,000,000

Incidence rate: 40,000 ÷ 2,000,000 = .02

These incidence rates will vary among states due to a number of factors, including differences in definitions of categories, differences in professional expertise available to diagnose disabilities, presence of interest groups representing a specific handicap, and even style of living.

These incidence rates will also vary among age groups; for example, speech impairments are normally high in the elementary age group, but are considerably less frequent at the secondary level. Some handicaps will not show up until the child begins school, with the result that incidence rates are generally lower for the preschool age group.

The incidence rate should reflect those children requiring special education in each category. It may be important to consider that some children, while being handicapped, may not require special education services.

Be sure that the incidence rates chosen relate to the population specified in Step 1. For example, if school enrollments were used, the incidence rates should apply only to children attending school. If total numbers of children within an age group were used, the incidence rates should be reflective of children out of school as well as in school.

Below are examples of various estimated incidence rates for handicapping conditions in the school age population:

Handicapping Condition	Hawaii[1]	BEH[2]	North Dakota[3]
Mentally Retarded	1.95%	3.00%	2.25%
Learning Disabled	2.00	2.50	5.00
Emotionally Handicapped	.10	2.00	3.00
Speech Handicapped	3.00	3.50	5.00
Visually Handicapped	.03	.22	.08
Hearing Handicapped	.20	.57	2.10
Physically Handicapped	.10	.50	.50
Multi-Handicapped	.01	.06	.50
Total	7.39%	12.35%	18.43%

1. See following page for notes

1. Hawaii Department of Education, State Plan for Special Education & Services, Honolulu: Hawaii Department of Education, April 1975, p. 94.

2. P. A. Craig and N. A. McEachron, The Development and Analyses of Baseline Data for the Estimates of Incidence in the Handicapped School Age Population, Menlo Park, Calif.:Stanford Research Institute, 1974, p. 3.

3. J. S. Kakalik, et. al., Services for Handicapped Youth: A Program Overview, (HEW Contract No. HEW-0S-72-101), Santa Monica, Calif.: Rand, 1974.

Number of Students Served by Special Education

The data required here are the numbers of students in each of the chosen categories who are receiving special education in the beginning year of the planning period. If the beginning year is the current year, use the numbers currently enrolled in special education programs. If the beginning year is last year, use the prior year enrollment or attendance data.

Child count data are usually adequate for this purpose, providing data on the number of students enrolled in special education programs. However, child count data are not cumulative—that is, they are one-time-only counts, rather than totals served over the whole year. Therefore, for some categories in which there is a great deal of turnover during the year, the actual number of students served may be considerably higher. For speech and language students, for example, it may be more realistic to use the total number of these students served during the year rather than the number receiving speech and language services at one given time.

Either the one-time or the cumulative count can be used, as appropriate for each category. It is important to be aware of which type of count is used, as it affects personnel planning in Step 4. Specifically, the count should be consistent with the pupil-teacher ratios used later, because the numbers of personnel required are computed by taking the number of children served and dividing it by the ratio.

These data on numbers of students receiving special education should represent an unduplicated count. Each student should be counted under the primary category or handicapping condition only.

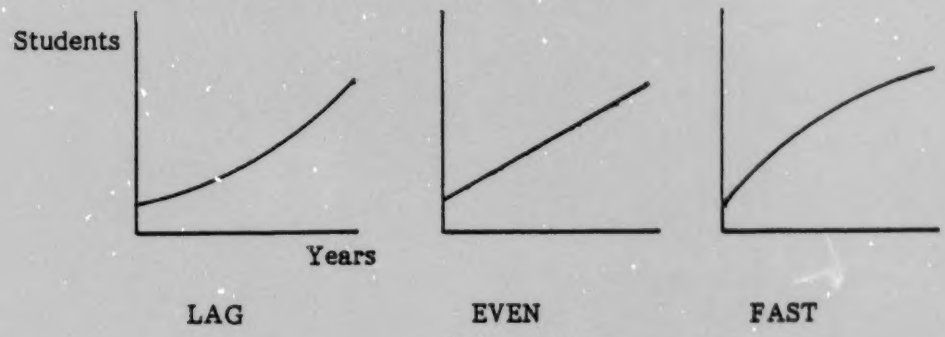
Full Service Year

Full service means that all eligible children are receiving some type of special education service, although these services may or may not be the appropriate services. The full service year for a given classification category refers to the school year in which full services will be provided to all children within that classification category. It may be the last year of the planning period or any prior year. The full service year may vary with different categories of students; that is, it may be possible or desirable to reach full service sooner for some categories than for others.

Phase-In Pattern

The phase-in pattern refers to the manner in which full service is reached or, in other words, the pattern by which annual increases (or decreases) in the special education program are expected to occur. Choose a phase-in pattern for each category of students to reach full services; these may be LAG, FAST, EVEN or REAL. As with full service year, phase-in pattern may vary with different categories of students.

Graphically, these phase-in patterns represent the following curves:



Many programs start up slowly; that is, the number of children served will increase modestly at first, but increase more rapidly as the full service date approaches. If this phase-in pattern is planned for one or more categories of students, check the LAG designation on the worksheet.

If, however, a fast phase-in pattern is planned for any category of students, check FAST on the worksheet. Likewise, if students are to be added to programs in even annual increments, check EVEN in the appropriate row. The model will then calculate the numbers of children to be served each year accordingly.

There may be instances in which, for a given category, the specific number of students to be served each year is known. If so, indicate REAL for the phase-in pattern for this category (or categories) and use Worksheet 2R to fill in the numbers for each year. The REAL pattern should only be used when estimates for that category are available for <u>each</u> year of the planning period or up to the full service year indicated.

To Complete Worksheet 2:

1. In the column headed CLASSIFICATION CATEGORY, FULL TITLE, enter the categories to be used to identify the population of children eligible for special education. Up to 18 separate categories may be chosen. The order in which the classification categories are listed will be used on subsequent worksheets and will appear in the projections.

2. In the column headed CLASSIFICATION CATEGORY, ABBREVIATION, designate an abbreviation or shortened form of up to eight spaces for each category. This abbreviation will appear on the computer-generated reports.

3. In the column headed INCIDENCE RATE enter the incidence rate for each category. This percentage should be expressed as a decimal figure (e.g., .02 for 2%).

4. In the column headed NUMBER OF STUDENTS SERVED IN BEGINNING YEAR, enter the number of students receiving special education for each category during the beginning year of the planning period. This should be an unduplicated count; that is, each student should be counted in the primary category only.

5. In the column headed FULL SERVICE YEAR, enter the school year in which full service is to be achieved for each category of students. This may be

the ending year of the planning period or any prior year. Use the first year to indicate a school year (e.g., 1980 for 1980-81).

6. In the column headed PHASE-IN PATTERN, check the phase-in pattern chosen to reach full service for each category of students.

7. If REAL is chosen as the phase-in pattern for any categories, use Worksheet 2R. Write in the years in the planning period across the top; down the left side, enter the categories for which this REAL phase-in pattern applies. Then enter the estimated numbers to be served in the applicable categories for each year in the planning period or up to the full service year indicated on Worksheet 2.

WORKSHEET 2: SPECIAL EDUCATION POPULATION

CLASSIFICATION CATEGORY		INCIDENCE RATE	NUMBER OF STUDENTS SERVED IN BEGINNING YEAR	FULL SERVICE YEAR (e.g., 80 for 80-81)	PHASE-IN PATTERN			
FULL TITLE	ABBREVIATION (up to 8 spaces)				LAG	EVEN	FAST	REAL*
1. Educable Mentally Retarded	EMR	.02	28,000	19 78		✓		
2. Trainable Mentally Retarded	TMR	.003	3,000	19 80	✓			
3. Specific Learning Disabilities	SLD	.02	22,000	19 80	✓			
4. Emotionally Disturbed	ED	.01	4,500	19 80	✓			
5. Visually Impaired	VI	.001	1,660	19 78		✓		
6. Hard of Hearing	HOH	.003	3,150	19 79			✓	
7. Deaf	Deaf	.001	1,900	19 78			✓	
8. Speech Impaired	Speech	.03	39,000	19 80	✓			
9. Crippled and Other Health Impaired	COHI	.005	4,000	19 80				✓
10. Severely Handicapped	Severe	.002	800	19 80	✓			
11.				19				
12.				19				
13.				19				
14.				19				
15.				19				
16.				19				
17.				19				
18.				19				

*If "Real" is indicated, also use Worksheet 2R.

WORKSHEET 2R: "REAL" SPECIAL EDUCATION POPULATION DATA

(Supplementary worksheet: Use only if the REAL phase-in pattern is selected to specify the precise numbers of special education students served every year for any one or more classification categories.)

CLASSIFICATION CATEGORY (ABBREVIATION)	NUMBER OF STUDENTS SERVED UP TO FULL SERVICE YEAR									
	Begin. Year 19 76	Year 2 19 77	Year 3 19 78	Year 4 19 79	Year 5 19 80	Year 6 19___	Year 7 19___	Year 8 19___	Year 9 19___	Year 10 19___
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9. COHI	4000	4500	5500	7000	9200					
10.										
11.										
12.										
13.										
14.										
15.										
16.										
17.										
18.										

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STEP 3: INSTRUCTIONAL PROGRAMS

The third step gathers information on the kinds and costs of special education instructional programs which are, and which are planned to be, provided in the state.

Types of Programs

For the purposes of SEPM, instructional programs are generally defined as those special educational services or activities which are mainly instructional in nature. They would typically not include related services, such as diagnostic services, therapy, transportation or administrative activities. There is a separate series of steps for collecting data on the provision of related services. However, if some of these related services are part of a state's total "package" of instructional programs, they may be included with the instructional programs. Some states, for example, include district administration or transportation as part of the instructional program, either as a distinct component or as an overhead charge to the instructional program. Below are some of the types of instructional programs which may be offered to children with special education needs. This listing is designed to be representative of the range of instructional alternatives for handicapped children and is intended as a guide to consider when developing a list of programs.

1. Regular Class

If special education students receive instruction totally within the regular class setting, then this placement should be listed as an instructional program option. (This refers to regular class placement <u>without</u> any of the other special education instructional programs listed below.) This might occur with the addition of related or support services and/or with a back-up program of inservice training to the regular teacher. In the first instance, students may receive special educational services in the

form of non-instructional, indirect, or related services. For example, some emotionally handicapped children may receive only counseling services; some orthopedically handicapped children may receive only physical therapy as their special education service. To maintain some mildly handicapped students in the regular class, the assistance of a teacher's aide may be the only special education service provided.

There may be other instances in which handicapped students receive no separately identifiable special education services. Inservice and training for regular teachers and use of regular aides may make the regular class an appropriate option for some special education students.

Some states may not consider placement in the regular class, without any special education service, as constituting an appropriate instructional program for children with special education needs. These states would define a handicapped child as one requiring some separately identifiable special education program. In this case, regular class should <u>not</u> be listed as an instructional program for special education students.

2. Consultive Services

These services generally consist of consultive assistance to a regular classroom teacher who provides instruction for handicapped children within the regular class setting. Such assistance usually takes the form of helping in the development, implementation and review of a student's individual instructional program. It may include some direct, instructional activities with the student, but generally this would be more for the purpose of demonstration and less an on-going activity. These services are

typically provided by a special education consultant who works with a number of teachers within a district or region.

3. Speech & Language Instruction

This program may be provided to special education students in a regular class program as the only special education service they receive, or it may be provided in addition to other special education instructional programs and/or related services. It is usually provided by a certified specialist who gives instruction to a number of children within a district or region.

4. Itinerant Instruction

Generally, this program is provided to special education children within the regular class setting. The emphasis is on direct instructional activities which are focused on individual educational needs, with some back-up consultation to the child's teacher. Children with visual handicaps, for example, may receive instruction from an itinerant specialist for the visually impaired. Children with specific learning disabilities may receive training in perceptual-motor skills. The itinerant instructor will normally provide instruction to a number of children within a district or region.

5. Resource Room

Instruction is provided by a special education resource teacher to handicapped students who are, in general, attending the regular class. The resource teacher is usually assigned to only one school and normally provides instruction to small groups of students for short periods of time during the day.

6. Part-Time Special Class

Students in this program are assigned to and receive instruction within a self-contained special education class, but will also spend half or more of the day in regular class settings or in work experience or similar programs. The special education teacher for this type of program generally provides instruction to another group of special education students or functions in other capacities for the balance of the school day.

7. Full-Time Special Class

This class is composed solely of students with special needs. Most of the students' instruction is provided by a special education teacher. While students may spend some portion of time with regular students, it is generally substantially less than half a day.

8. Vocational Program

Typically a secondary or higher level program, this may include skill centers where students learn skills related to specific work or careers, community or school work stations, and on-the-job development.

9. Separate School Facility

This is a separate school for special education students only and may be operated by a local district or on a regional level.

10. Homebound and Hospital Instruction

This program is provided to students who are unable to attend school, usually due to health reasons. Instruction is provided by a certified teacher and is generally for a minimum of 3 to 5 hours per week.

11. State School

Handicapped students may be assigned to a special state operated school, such as a state school for the deaf or blind.

12. Public Day School

These programs are operated by another state agency, such as mental health, generally for students with more severe handicaps.

13. Public Residential School

These are non-educational-agency operated programs, which provide board and lodging as well as instruction.

14. Private Day School

Instructional programs provided by private agencies and groups may also serve special education students.

15. Private Residential School

These are privately operated programs which provide board and lodging as well as instruction.

Instructional programs for preschool handicapped children may take the general form of some of those listed above. Preschool children may be provided special education by public agencies, private agencies, or by the local education agency. In addition, other types of programs may be offered which are essentially different, such as:

1. Parent Education Program

This generally involves a specialist who may work with individual parents or groups of parents, often in the home.

2. Center-Based Program

These are generally intensive programs which have a high ratio of teachers and teacher aides to students.

3. Head Start

This program is another variation on the "mainstreaming" approach to serving handicapped children. Preschool handicapped children are provided special education services within the Head Start program.

Resources

Each of the special education instructional programs which will be provided can be thought of as a unit consisting of specific resources. Later in this step, a price will be associated with each resource.

For each of the instructional programs being offered, a separate set of resources is developed. These resource configurations will vary among states. A full-time special class, for example, might consist of the following resources:

Special education teacher
Instructional aide
Instructional materials and supplies
Classroom maintenance and operation
Extra-curricular activities allowance

It might also be shown by budget line items as follows:

Teacher salary
Benefits
Other direct costs
Indirect costs

Consultive services might have the following configuration of resources:

Specialist/Consultant
Instructional materials
Travel allowance

Some states may not want or be able to specify the resources for all programs; rather, they may simply assign to an instructional program an average cost. In this case "average cost per unit," or "average cost per student," would be the resource designation.

For instructional programs provided by other public agencies and private agencies, the resource configuration may be viewed as the cost to the local and/or state education agency. That is, it may be a state contract payment, an average tuition charge per student, or an average total cost per student. These payments are the resources which the education agency must provide to purchase the needed special education services.

Quantity

The quantity of each resource is generally assumed to be one (1.0). That is, there is one special education teacher per special class unit, one instructional materials allowance per special class unit, and so forth. However, this may not always be the case. Some programs, for example, are staffed with more than one teacher and some have only part-time personnel. Since these programs represent the average in the state, use the quantity that best represents this average. If, on average, only half of the special classes are staffed with an aide, for example, the quantity for that resource would be .5.

Prices

A price is next assigned to each resource. Generally, these prices reflect annual averages, such as a state-wide average special education teacher's salary or the average amount allotted per teacher for instructional materials. For example, in a full-time special class the prices might be shown as follows:

Special education teacher	$13,500
Instructional aide	5,000
Instructional materials	500
Classroom maintenance and operation	1,000
Extra-curricular activities allowance	200

A full-time special class might also be priced in the following manner:

Teacher salary	$12,000
Benefits	2,400
Other direct costs	600
Indirect costs	9,000

If the regular class is an instructional program option for special education students, prices should be given for only the special education service portion of that program. For instance, a teacher's aide may be the only cost item for serving special education students in the regular class. (However, if desired, the full cost of the regular class can be specified as a cost of serving special education students.) Non-instructional or related services are priced later, in steps 5 and 6.

Give the price for one (1.0) quantity of each resource, even if a fractional or multiple quantity of the resource is to be used. For example, show the annual salary of one aide ($5,000) even if only one-half aide per classroom has been specified in the resources.

Resources to be priced typically include only current expense items. Capital expense items, such as buildings, should not be included unless depreciation is taken as an annual expense item.

To arrive at prices associated with instructional programs not provided within the public school system, a different approach may be taken. It may be easier to estimate an average cost per student rather than to develop the cost by the pricing of specific resources, as shown above. For example, the cost per student in a state school for the deaf can be obtained by dividing the school's total current operating budget by its enrollment. For other public agencies and private agencies, the average tuition charge per student may be used.

If, however, there is no charge to the state or local education agency, a zero price may be used. It is the decision of the planner to determine those costs that should or should not be included.

To Complete Worksheet 3:

Use additional worksheets as necessary.

Complete one row at a time:

1. In the column headed INSTRUCTIONAL PROGRAM, FULL TITLE, list the different types of special education instructional programs which will be provided. Up to 20 programs may be specified. List any programs which have "average cost per student," "average tuition charge per student," or any other per student designation last. (The order in which these programs are listed will be used in subsequent worksheets and will appear in the projections.)

2. In the column headed INSTRUCTIONAL PROGRAM, ABBREVIATION, designate an abbreviation or shortened form of up to eight spaces for each instructional program.

3. In the column headed RESOURCES, TYPE, list the resources required for each instructional program or the appropriate average cost designation.

4. In the column headed QUANTITY, enter the appropriate number or decimal fraction for each resource type.

5. In the column headed RESOURCES, PRICE, assign a unit price to each of the resources listed. If "average cost per unit" or "average cost per student" is the resource, enter the appropriate cost.

WORKSHEET 3: INSTRUCTIONAL PROGRAMS

INSTPUCTIONAL PROGRAM		RESOURCES		
FULL TITLE	ABBREVIATION (up to 8 spaces)	TYPE	PRICE	QUANTITY
1. Consultive Services	Consult	Teacher, M.A.+ level	$15,000	1
		Instructional materials	300	1
		Travel allowance	450	1
2. Speech and Language Instruction	S & L	Teacher, M.A. level	$13,500	1
		Instructional materials	300	1
		Classroom maint. & op.	250	1
		Travel allowance	450	1
3. Specialist Services	Spec Svc	Teacher, M.A. level	$13,500	1
		Instructional materials	300	1
		Classroom maint. & op.	250	1
		Travel allowance	450	1
4. Resource Room	Resource	Teacher, M.A. level	$13,500	1
		Instructional aide	6,000	.5
		Instructional materials	400	1
		Classroom maint. & op.	500	1

WORKSHEET 3: INSTRUCTIONAL PROGRAMS (continued)

INSTRUCTIONAL PROGRAM		RESOURCES		
FULL TITLE	ABBREVIATION (up to 8 spaces)	TYPE	PRICE	QUANTITY
5. Special Class	Sp Class	Teacher, M.A. level	$13,500	1
		Instructional aide	6,000	1
		Instructional materials	500	1
		Classroom maint. & op.	1,000	1
6. Homebound and Hospital	Home	Teacher, B.A. level	$12,000	1
		Instructional materials	200	1
		Travel allowance	400	1
7. State Special Schools	State Sc	Average Total Cost	$8,500	1
8. Public Agency Programs	Public	Average Educational Cost	$5000	1

WORKSHEET 3: INSTRUCTIONAL PROGRAMS (continued)

INSTRUCTIONAL PROGRAM		RESOURCES		
FULL TITLE	ABBREVIATION (up to 8 spaces)	TYPE	PRICE	QUANTITY
9. Private Residential Programs	Pvt Res	Average Total Cost	$9,000	1
10. Private Day Programs	Pvt Day	Average Tuition Cost	$3,000	1
11.				
12.				

STEP 4: STUDENT PLACEMENT PATTERNS

In the preceding steps information has been assembled on the population of students to be served and on the types of instructional programs that are to be provided. Using the classification categories specified in Step 2 and the instructional programs chosen in Step 3, the placement of students in these various programs is now determined.

Beginning Placement Pattern

The placement pattern represents a distribution of students among the various instructional program options. The beginning placement pattern shows the placements of special education students in instructional programs during the beginning year of the planning period. This is expressed as the percentage (decimal) of students in each category who are or were being provided various instructional programs during the beginning year.

The sum of the percentages for a single category should total to at least 100% (1.0) and may be greater than 100%, if some students receive more than one type of program. For example, if 15% of the EMR students receive speech and language instruction in addition to other programs, the total placement percentage for EMR students is 115% (1.15). If the percentages for a category do not total to at least 100% (1.0), then not all of these students have been assigned to instructional programs.

If the state's data on placements are in the form of numbers of students served in each program, rather than percentages, it will be necessary to calculate decimal figures. This is done for each category of students by dividing the number of students placed in each program by the total number of students served in the category. (These total numbers are found on Worksheet 2.)

Expected Placement Pattern

The expected placement pattern refers to the desired or appropriate future placement of students. In making decisions about how children will be served in the future, the guiding factor should be to provide the most appropriate instructional alternatives for each category of students.

Again, the placement pattern is expressed as a percentage and may reflect students receiving more than one type of program. The sum of the percentages for a single category should total to at least 100% (1.0) and may be greater.

Expected Year

For each category of students, indicate the year in which the expected placement pattern will be achieved. This may be the last year of the planning period or any prior year and may vary with different categories of students.

Phase-In Pattern

For each category of students, indicate the phase-in pattern that will be utilized to achieve the expected placement pattern. These may be the LAG (slow phase-in), EVEN (even increments), or FAST (rapid phase-in) patterns explained in Step 2. The phase-in pattern may vary with different categories of students.

Number of Students per Instructional Unit

In this step, data are gathered on the number of special education students that can be served by each instructional program unit. The question to be answered is how many special education students the program unit can serve over the school year. The number will vary according to the type of program and the severity of student need.

This information is usually related to a pupil-teacher ratio or an average class size. For instructional programs that remain fairly constant over the year, such as a special class, this ratio or average class size is a good indication of the number of students who can be served. Most states set minimum or maximum student-personnel ratios for various programs; for the SEPM, however, use average student-personnel ratios or those in most prevalent use in the state.

For programs that have a substantial turnover of students during the year—such as speech and language programs, resource room programs, and other programs of relatively short term instruction—a better indication of the number of students served is the total number served over the entire year, as discussed in Step 2. In this case, the number served per unit must be the total number of students served by the instructional personnel over the entire year, not just at any given time. An example would be the total number of students served annually by a speech and language instructor: the prescribed caseload of the instructor may be 40 students at any one time; however, during the course of the year, the same instructor may actually provide instruction to 80 students.

To calculate average class sizes or numbers per unit for each of the instructional programs, it is possible to use state personnel counts if they give actual numbers of personnel by category or program. Take the actual number of resource teachers, for example, and divide that number into the number of students enrolled in resource room programs.

For those instructional programs which have only a per student designation (e.g. average tuition cost, or an average cost per student) specified as resources, the number served per unit would be "1", since these units of service only serve one student. (No personnel will be projected for these programs.)

The number of students per instructional program unit should be given for each placement indicated on Worksheet 4 whether beginning placement only, expected placement, or both. This would include programs being phased out as well as programs being started.

To Complete Worksheet 4:

Use the additional worksheets as necessary.

1. In the column headed CLASSIFICATION CATEGORY, ABBREVIATION, enter the categories (in abbreviated form) in the same order listed on Worksheet 2.

2. In the numbered program columns, write in the names (in abbreviated form) of each of the instructional programs in the same order listed on Worksheet 3.

3. In the rows marked BEGINNING % (DECIMAL), in the columns of instructional programs, enter the percentages (as decimal fractions) of students in each classification category who are or were receiving the various instructional programs during the beginning year of the planning period. The sum of the percentages for a single category should total to at least 100 percent (1.0), and may be higher in the case of additional services.

4. In the rows marked EXPECTED % (DECIMAL), in the columns of instructional programs, enter the percentages of students in each classification category who are expected to receive the various instructional programs. The sum of the percentages for a single category should total to at least 100 percent (1.0) and may be higher in the case of additional services. Fill in the year this expected pattern is to occur in the space 19__. This may be the ending year of the planning period or any prior year. Use the first year to indicate a school year (e.g., 1980 for 1980-81).

5. In the column headed PHASE-IN PATTERN, check the phase-in pattern to be utilized to achieve the expected placement pattern for each category of students.

6. In the rows marked NUMBER PER UNIT, in the columns of instructional programs, enter the number of students to be served per instructional program unit. This information should be provided whenever a placement is indicated, whether Beginning % only, Expected % only, or both.

WORKSHEET 4: STUDENT PLACEMENT PATTERNS

CLASSIFICATION CATEGORY (ABBREVIATION)		PERCENTAGE OF STUDENTS IN EACH PROGRAM AND NUMBER SERVED PER UNIT										PHASE-IN PATTERN		
		Program 1 Consult	Program 2 O&L	Program 3 SpecSvc	Program 4 Resource	Program 5 SpClass	Program 6 Home	Program 7 StateSc	Program 8 Public	Program 9 Pvt Res	Program 10 Pvt Day	LAG	EVEN	FAST
1. EMR	BEGINNING %		.10		.20	.70			.10					
	EXPECTED % 1980	.20	.50		.40	.40						✓		
	NUMBER PER UNIT	50	75		30	14			1					
2. TMR	BEGINNING %					.10			.60	.20	.10			
	EXPECTED % 1980		.40			.80			.10	.05	.05	✓		
	NUMBER PER UNIT		50			12			1	1	1			
3. SLD	BEGINNING %		.10		.50	.50								
	EXPECTED % 1980	.25	.25		.55	.20						✓		
	NUMBER PER UNIT	50	75		30	12								
4. ED	BEGINNING %				.10	.30			.10	.30	.20			
	EXPECTED % 1979	.20			.35	.40			.05	.02	.08		✓	
	NUMBER PER UNIT	50			20	10			1	1	1			
5. VI	BEGINNING %			.10		.20		.80						
	EXPECTED % 1980			.40		.40		.30				✓		
	NUMBER PER UNIT			20		8		1						
6. HOH	BEGINNING %		.50		.10	.30		.10						
	EXPECTED % 1980		.70		.25	.10		.05				✓		
	NUMBER PER UNIT		50		20	8		1						

WORKSHEET 4: STUDENT PLACEMENT PATTERNS (continued)

(Supplementary worksheet: Use only if more than 6 classification categories are designated.)

CLASSIFICATION CATEGORY (ABBREVIATION)		PERCENTAGE OF STUDENTS IN EACH PROGRAM AND NUMBER SERVED PER UNIT										PHASE-IN PATTERN		
		Program 1	Program 2	Program 3	Program 4	Program 5	Program 6	Program 7	Program 8	Program 9	Program 10	LAG	EVEN	FAST
		Consult	S&L	Spec Sve	Resource	Sp Class	Home	State Sc	Public	Pvt Res	Pvt Day			
7. Deaf	BEGINNING %							100						
	EXPECTED % 19 80			.10		.20		.70				✓		
	NUMBER PER UNIT			20		8		1						
8. Speech	BEGINNING %		1.00											
	EXPECTED % 19 80		1.00									✓		
	NUMBER PER UNIT		75											
9. COHI	BEGINNING %		.10			.30	.30			.10	.30			
	EXPECTED % 19 80		.40	.40		.40	.30				.10	✓		
	NUMBER PER UNIT		50	20		10	10			1	1			
10. Severe	BEGINNING %								.60	.40				
	EXPECTED % 19 79								.80	.20				✓
	NUMBER PER UNIT								1	1				
11.	BEGINNING %													
	EXPECTED % 19____													
	NUMBER PER UNIT													
12.	BEGINNING %													
	EXPECTED % 19____													
	NUMBER PER UNIT													

IV. DEVELOPING INPUTS FOR RELATED SERVICES

STEP 5: SPECIFIC RELATED SERVICES

Related services are those developmental, supportive or corrective services which may be required to assist the child with a handicap to benefit from instruction. For the purposes of SEPM, related services are those not included as part of instructional programs, described in Step 3. Related services can be divided into two types: those which are specifically related to an educational need or handicap, such as physical therapy for children with orthopedic impairments; and those which are to benefit all special education students, such as diagnostic assessment. The first type will be referred to as specific related services, and data will be compiled on these services in this step. In Step 6, information will be gathered on the second type, nonspecific related services.

Specific related services may be thought of as being linked to a particular classification category of educational need or disability presented by one or more special education students. The following list gives some examples of services of this nature which may be provided. They are grouped, for convenience, under three headings.

Support Services

Counseling Services
Social Work Services
Psychological Services
Psychiatric Therapy
Physical Therapy
Occupational Therapy
Recreational Therapy
Speech Therapy
Mobility Training
Guide Service
Reader Service
Interpreters
Note Takers
Driver Training
Vocational Services
Audiological Services

Special Equipment and Arrangements

Electronic communication equipment
Braille machines
Special seating and classroom equipment and modifications
Special diet

Special Transportation

This is generally provided by a combination of methods, depending on the type and severity of handicap, available district resources, and geographical factors.

In this step, those specific related services which are or were being provided during the beginning year of the planning period and those which are planned for subsequent years are specified. Each specific related service should be identified with a classification category, even though there may be some duplication. For instance, counseling services or transportation may be provided to several categories of students.

Beginning Service Level

Beginning service level refers to the percentage of students in each category who received the specific related service during the beginning year. Worksheet 4 can be used as a guide to assist in arriving at the beginning service level. Of those students shown in each classification category, what percentage were also receiving each of the specific related services listed? Some students may receive only specific related services.

Social work services, for example, may be a specific related service being planned for TMR students. Of all the students classified as TMR, only 10 percent may have received social work services in the beginning year. (The reason for this may be that most TMR students were being served in other agency settings, and social work services were not an identifiable cost to the local or state educational agency.)

If the data on students receiving related services are in the form of numbers of students served, rather than percentages, please calculate percentages. This is done for each category of students by dividing the number of students receiving each related service by the total number of students served in the category. (These totals are shown on Worksheet 2.) If there were no students receiving one or more of the specific related services during the beginning year, a zero percentage should be indicated.

When dealing with specific related services which apply only to a part of the age group—such as vocational services for the secondary level students of a school age (K-12) group—be sure that the percentage shown takes this into consideration. For instance, of all educable mentally retarded students, only 30 percent (.30) may be at the secondary level. If of these, 20 percent (.20) were receiving vocational counseling during the beginning year, this would result in a beginning service level for vocational counseling for EMR students of 6 percent (.30 x .20 = .06).

Expected Service Level

Expected service level refers to the percentage of students who are expected to receive each of the specific related services in the future. Again, Worksheet 4 can be a guide to where students are expected to be served. Of the students shown in each classification category, what percentage will receive each of the specific related services listed? Some students may receive only specific related services.

For example, by the ending year of the planning period over half of the TMR students may be expected to be served in public school settings, and therefore social work services could be provided to 50 percent of the TMR population. In other cases, plans may exist to phase out a specific related service. This would be indicated by a zero percentage for the expected service level.

Year of Expected Service Level

Indicate the year in which the expected service level for each specific related service will be achieved. This may be the ending year of the planning period or any prior year, and may vary with each different type of service.

Phase-In Pattern

Indicate also the phase-in pattern to be utilized to achieve the expected service level. These may be LAG, EVEN, FAST, or REAL as explained in Step 2. The phase-in pattern may vary with different services.

The REAL phase-in pattern may be used in those instances in which the percentage of students to receive a specific related service for each year of the planning period is known. If the REAL phase-in pattern is chosen, use Worksheet 5R to show percentages of students to be served each year by the specific related service or services. The REAL pattern should only be used when estimates are available for each year of the planning period or up to the year indicated as the expected service level year for that specific related service.

Resources

Each of the specific related services can be thought of as a unit consisting of resources which comprise the service. As discussed in Step 3 with instructional programs, listing and subsequent pricing of the resources are a means for arriving at a cost per unit of service.

Due to the great variability of specific related services, several means may be used to determine resources. Sometimes a service will involve full or part time school district personnel, and can be figured in the same way as a district-offered instructional program. For example, vocational counseling services might consist of:

Vocational counselor (salaries and benefits)
Materials and supplies
Office space
Travel allowance

Other times, a specific related service may be comprised of services purchased outside the district. For example, psychiatric services for seriously emotionally disturbed students may include:

Purchased services @ $ per hour and
Average number of hours per year per student

Sometimes a specific related service may more easily be described as an average cost for the service, such as an average per pupil cost for transportation of special education students, or the average unit cost of a physical therapy program. In these cases, an "average cost per unit" or "average cost per student" can represent the resource designation. If the estimated personnel requirements are to be projected, be sure to indicate the number of personnel required for one unit of service.

Prices

If resources are separately specified, a price (representing an average annual price) is assigned to each resource. The prices must be totaled to give a cost per unit.

For example, prices for vocational counseling services may be as follows:

Vocational counselor (statewide average)	$13,500
Materials and supplies	200
Office space (.25 of classroom)	125
Travel allowance	450
Cost per unit	$14,275

Prices for psychiatric services may be figured in the following manner:

Purchased services @ $50 per hour	
Average of 10 hours per student per year	
Cost per student	$ 500

If an "average cost per student" or "average cost per unit" is the resource designation, use the average cost as the price (e.g., $500 per student for transportation, or $40,000 per unit for a physical therapy program). If there is no charge to the state or local education agency, a zero price may be used to indicate this.

Number of Personnel Per Unit of Related Service

This refers to the number of full time equivalent personnel employed in one unit of the related service. If personnel are specified in the resources for the related service, the number of personnel should be indicated. Fractional quantities may be used (e.g., .5 for a half-time person).

Number of Students Per Unit of Related Service

This refers to the number of students that can be served by a specific related service unit. For example, in the case of vocational counseling, the number of students that one unit of the vocational counseling service can serve may be determined by taking a statewide average student-counselor ratio, or the average-year long caseload of the vocational counselor. For instance, the vocational counselor may work with an average of 50 special education students over a school year.

The number of students served by the unit of psychiatric services that was described earlier would be only one student, since the unit cost is expressed as a cost per student. This would also hold true for the transportation example, because that too was expressed as a cost per student. For the physical therapy program example, however, one unit might serve 50 students over the year.

To Complete Worksheets 5A and 5B:

There are two worksheets for Step 5: Worksheet 5A, which should be completed first, and Worksheet 5B. (There is also a supplemental worksheet, Worksheet 5R, to be used only if the REAL phase-in pattern is used.)

Worksheet 5A:

Complete one row at a time:

1. In the column headed CLASSIFICATION CATEGORY, ABBREVIATION, write in the name (in abbreviated form) of the category of students to which the specific related service in that row applies. Use the same order as was used to list categories on previous worksheets. If no specific related services are being provided or planned to be provided for a category, do not list that category.

2. In the column headed SPECIFIC RELATED SERVICE, FULL TITLE, enter the name of the specific related service to be provided.

3. In the column headed SPECIFIC RELATED SERVICE, ABBREVIATION, designate an abbreviation or shortened form of up to eight spaces for each specific related service.

4. In the column headed SERVICE LEVEL: PERCENTAGE OF STUDENTS RECEIVING SERVICE, BEGINNING %, enter the decimal percentage of students who are or were receiving the service during the beginning year of the planning period.

5. In the column headed SERVICE LEVEL: PERCENTAGE OF STUDENTS RECEIVING SERVICE, EXPECTED %, enter the percentage (decimal) of students who are expected to receive the service.

6. In the column headed YEAR OF EXPECTED SERVICE LEVEL, enter the year in which the expected service level is to be reached. This may be the ending year of the planning period or any prior year. Use the first year to indicate a school year (e.g., 1980 for 1980-81).

7. In the column headed PHASE-IN PATTERN, check the phase-in pattern to be utilized to achieve the expected service level.

8. If the REAL phase-in pattern is chosen for any service, use Worksheet 5R. Write in the years in the planning period across the top. Write in the name of the category of students and the specific related service for which the REAL pattern applies on the left side. Then enter the estimated decimal percentage of students to be served for each year in the planning period or until the expected service level year is reached.

Worksheet 5B:

Complete one row at a time:

1. In the column headed CLASSIFICATION CATEGORY, ABBREVIATION, write in the name (in abbreviated form) of the category of students to which the specific related service in that row applies. Use the same order as was used on Worksheet 5A.

2. In the column headed SPECIFIC RELATED SERVICE, ABBREVIATION, write in the name of the specific related service (in abbreviated form). Use the same order as was used on Worksheet 5A.

3. In the column headed RESOURCES, TYPE, list the resources required for each specific related service (or the appropriate cost per unit or cost per student designation). Indicate the number of personnel required for each unit of service, if appropriate.

4. In the column headed RESOURCES, PRICE, assign a price to each resource listed and total them to achieve a per unit cost. If "average cost per unit" or "average cost per student" is the resource designation, enter the appropriate cost.

5. In the column headed # PERSONNEL PER UNIT, enter the number of full-time equivalent personnel in one unit of the given related service. If no personnel are included in the resources specified for the related service, leave this column blank. Decimal fractions should be used to indicate part-time equivalents (e.g., .5 for a half-time person, 1.25 for one and one-quarter full-time equivalent people).

6. In the column headed NUMBER OF STUDENTS PER UNIT OF RELATED SERVICE, enter the number of students to be served by each unit of related service. If the unit is expressed as an average cost per student, enter 1.

WORKSHEET 5A: SPECIFIC RELATED SERVICES

CLASSIFICATION CATEGORY (ABBREVIATION)	SPECIFIC RELATED SERVICE		SERVICE LEVEL: PERCENTAGE OF STUDENTS RECEIVING SERVICE		YEAR OF EXPECTED SERVICE LEVEL	PHASE-IN PATTERN			
	FULL TITLE	ABBREVIATION (up to 8 spaces)	BEGINNING % (Decimal)	EXPECTED % (Decimal)		LAG	EVEN	FAST	REAL*
EMR	Vocational Counseling	Voc Cons	.0	.20	1980	✓			
TMR	Special transportation	Trans	.10	.80	1980	✓			
ED	Psychiatric services	Psych Sv	.10	.20	1980				✓
VI	Large print books	Lg Print	.20	.60	1978		✓		
VI	Mobility training	Mobility	.0	.10	1978		✓		
Deaf	Interpreters	Interp	.0	.10	1979			✓	
COHI	Physical therapy	Phy Ther	.10	.30	1980	✓			
COHI	Occupational therapy	Occ Ther	.0	.10	1980	✓			
COHI	Special transportation	Trans	.30	.60	1980	✓			
					19__				
					19__				
					19__				
					19__				
					19__				
					19__				
					19__				
79					19__				
					19__				80

*If "Real" is indicated, also use Worksheet 5R.

WORKSHEET 5R: "REAL" PHASE-IN DATA FOR SPECIFIC RELATED SERVICES

(Supplementary worksheet: Use only if the REAL phase-in pattern is selected to specify the precise percentage of students receiving service every year up to the expected service level year.)

CLASSIFICATION CATEGORY (ABBREVIATION)	SPECIFIC RELATED SERVICE (ABBREVIATION)	SERVICE LEVEL: PERCENTAGE OF STUDENTS RECEIVING EACH SERVICE									
		Begin. Year 19 76	Year 2 19 77	Year 3 19 78	Year 4 19 79	Year 5 19 80	Year 6 19	Year 7 19	Year 8 19	Year 9 19	Year 10 19
ED	Psych Sv	.10	.11	.14	.17	.20					

S1

S2

WORKSHEET 5B: RESOURCES FOR SPECIFIC RELATED SERVICES

CLASSIFICATION CATEGORY (ABBREVIATION)	SPECIFIC RELATED SERVICE (ABBREVIATION)	RESOURCES			NUMBER OF STUDENTS PER UNIT OF RELATED SERVICE
		TYPE	PRICE	# PERSONNEL PER UNIT	
EMR	Voc Cons	Counselor Classroom maint. & op.	$13,500 500 14,000	1	100
TMR	Trans	Average cost per student	$ 500		1
ED	Psych Sv	Purchased services @ $50/hour Each student requires 10 hours/year	$ 500		1
VI	Lg Print	Average cost of materials per student	$50		1
VI	Mobility	Purchased services @ $10/hour Each student will receive 20 hours/year	$200		1
Deaf	Interp	Purchased services @ $5/hour Each student will receive 40 hours/year	$200		1

WORKSHEET 5B: RESOURCES FOR SPECIFIC RELATED SERVICES (continued)

CLASSIFICATION CATEGORY (ABBREVIATION)	SPECIFIC RELATED SERVICE (ABBREVIATION)	RESOURCES			NUMBER OF STUDENTS PER UNIT OF RELATED SERVICE
		TYPE	PRICE	# PERSONNEL PER UNIT	
COHI	Phy Ther	Purchased services @ $10/hour. Each student will receive 72 hours/year	$720		1
COHI	Occ Ther	Purchased services @ $10/hour. Each student will receive 36 hours/year	$360		1
COHI	Trans	Average cost per student	$500		1

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STEP 6: NONSPECIFIC RELATED SERVICES

Nonspecific related services are those which are provided to benefit all special education students. The following list suggests examples of services of this nature which may be provided.

Administration

This consists of services for the management and administration of special education programs. These may include administrative, supervisory and clerical personnel, information services, data processing, program evaluation, planning and research, and advisory board activities.

Childfind

This includes activities to locate unidentified and unserved handicapped children.

Assessment

This includes diagnostic evaluation and re-evaluation of students with suspected or known special education needs. Assessment activities may also include individualized instructional planning and the development of non-discriminatory testing materials and methods.

Due Process

This includes services required to ensure parent and student rights. The provision of hearing officers, parent substitutes, recorders, and interpreters may be included.

Inservice

These are activities to provide and improve skills, training and information for educational personnel, parents, and others who are associated with special education students.

Curriculum and Program Development

This involves activities to research and develop more effective teaching practices and materials for special education students.

When listing types of nonspecific related services, it may be useful to separate items. For example, administration might be divided into district special education administration and the state special education office because the composition, personnel categories and/or salaries of the two agencies may differ considerably.

Resources

Each of the nonspecific related services can be thought of as a unit consisting of resources which comprise the service. As discussed in Step 3, the pricing of the resources is a means of arriving at a cost per unit of service (such as the cost of a district diagnostic team). A cost per student (such as an average charge per student for contracted assessment services) can also be the resource designation. For some nonspecific related services, total cost may be the appropriate resource designation, such as the total cost of a state office to direct childfind activities.

Thus, the resources of a nonspecific related service may either be separately specified or specified as a "cost per unit," "cost per student," or "total cost." If the estimated personnel requirements are to be projected, be sure also to indicate the number of personnel required for one unit of service.

Prices

If resources are separately specified, a price is assigned to each resource, and the prices are totaled to reflect either a cost per unit or a total cost.

For example, district administration may be priced as follows, using statewide average salaries:

Special education director	$ 18,000
Part time clerical personnel	5,000
Cost per unit	$ 23,000

Contracted assessment services may be priced as follows:

Psychological testing services @ $50 per student.

Some non-specific related services, such as a statewide childfind, may be priced in total as follows:

Full time professional personnel	$ 15,000
Full time clerical personnel	8,000
Travel allowance	7,000
Supplies, materials, phone	5,000
Publicity	8,000
Contract services	15,000
Total cost	$ 58,000

If "cost per unit," "cost per student," or "total cost" is the only resource designation, use the appropriate cost associated with this designation.

Beginning Service Level

Beginning service level for nonspecific related services refers to the amount of service being provided during the beginning year of the planning period. This can be expressed in one of three ways, as appropriate to the particular nonspecific related service being considered. The method chosen should correspond to the method of pricing used — cost per unit, cost per student, or total cost — indicated for each nonspecific related service:

1. The number of units of a nonspecific related service may be used to indicate the beginning service level. An example might be the number of district diagnostic teams operating in the state during the beginning year. (Price for this service would be on a cost per unit basis.)

2. The numbers of total special education students receiving or covered by the service during the beginning year is another way to express the beginning service level. An example is the number of students being served by an assessment service during the beginning year. (Price for this service would be on a cost per student basis.)

3. The percentage of total effort required to achieve the desired level of service is the third way of indicating service level. For example, inservice activities may reach 20 percent (.20) of all certified personnel during the beginning year (with the goal of 100 percent (1.0) for the ending year). Another example may go the opposite way: childfind activities may start out at 100 percent (1.0) during the beginning year and then be reduced to a 20 percent (.20) level of effort for the ending year. (Price for these services would be on a total cost basis at the 100 percent (1.0) level.)

If there were no services being provided during the beginning year for any nonspecific related service, the level would zero.

Expected Service Level

The expected service level represents the amount of service expected to be provided in the future. The expected service level should be expressed in the same way as the beginning service level (number of units, number of students, or percentage of total effort).

For example, the expected service level may be the number of district diagnostic teams planned by the ending year of the planning period. It may be the number of students served by assessment services during the ending year. It may be the percentage of certified personnel receiving inservice the ending year, or the percentage of level of effort of childfind activities.

Year of Expected Service Level

Indicate the year in which the expected service level for each nonspecific related service is to be achieved. This may be the ending year of the planning period or any prior year, and may vary with each different type of service.

Phase-In Pattern

Indicate also the phase-in pattern to be utilized to achieve the expected service level. These may be LAG, EVEN, FAST or REAL as explained in Step 2. The phase-in pattern may vary with different services.

The REAL phase-in pattern may be used in those cases in which the level of service is specified for each year in the planning period, or until the expected service level year is reached. If the REAL phase-in pattern is chosen, use Worksheet 6R. This will be used to show how many units of service are to be provided each year, the numbers of students to be served each year, or percentages of total level of effort for each year.

To Complete Worksheet 6:

Complete one row at a time:

1. In the column headed NONSPECIFIC RELATED SERVICE, FULL TITLE, enter the name of each nonspecific related service that will be provided. Please number each service.

2. In the column headed NONSPECIFIC RELATED SERVICE, ABBREVIATION, designate an abbreviation or shortened form of up to eight spaces for each nonspecific related service.

3. In the column headed RESOURCES, TYPE, list the resources required for each nonspecific related service or the appropriate cost per unit, cost per student, or total cost designation. Include the number of personnel required for each unit of service, if appropriate.

4. In the column headed RESOURCES, PRICE, assign a price to each resource listed and total them to achieve a per unit cost. If "cost per unit," "cost per student," or "total cost" is the resource designation, enter the appropriate cost.

5. In the column headed SERVICE LEVELS, BEGINNING, enter the corresponding number of units of service, number of students, or percentage of total effort being provided during the beginning year. These should be stated in the same terms as the price figures. For example, if "cost per unit" is used, the service levels would represent the number of units; if "cost per student" is used, the service level should be the number of students.

6. In the column headed SERVICE LEVELS, EXPECTED, enter the corresponding number of units of service, number of students, or percentage of total effort expected to be provided.

7. In the column headed YEAR OF EXPECTED SERVICE LEVEL, enter the year in which the expected level of service will be achieved. This may be the ending year of the planning period or any prior year. Use the first year to indicate a school year (e.g., 1980 for 1980-81).

8. In the column headed PHASE-IN PATTERN, check the phase-in pattern to be utilized to achieve the expected service level.

9. If the REAL phase-in pattern is chosen for any service, use Worksheet 6R. Write in the years in the planning period across the top, and the name of the nonspecific related service for which the REAL pattern applies on the left side. Starting with the beginning year, enter either the number of units of service, number of students to be served, or percentage of total effort for each year in the planning period or until the expected service level year is reached.

WORKSHEET 6: NONSPECIFIC RELATED SERVICES

NONSPECIFIC RELATED SERVICE		RESOURCES		SERVICE LEVELS		YEAR OF EXPECTED SERVICE LEVEL	PHASE-IN PATTERN			
FULL TITLE	ABBREVIATION (up to 8 spaces)	TYPE	PRICE	BEGINNING	EXPECTED		LAG	EVEN	FAST	REAL*
1. Assessment	assess	District diagnostic team:								
		D/P teacher (1)	$15,000							
		School psychologist (1)	15,000							
		S&L therapist (1)	15,000							
		School social worker (1)	15,000							
		Medical services (purchased)	3,000							
		Testing materials	1,000							
		Travel allowances ($50 per person, per month, 10 months)	2,000							
		Total cost per team	$66,000	30	128	1979	✓			
		Presently 30 teams existing, will need 128 teams to serve all districts								

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WORKSHEET 6: NONSPECIFIC RELATED SERVICES (continued)

NONSPECIFIC RELATED SERVICE		RESOURCES		SERVICE LEVELS		YEAR OF EXPECTED SERVICE LEVEL	PHASE-IN PATTERN			
FULL TITLE	ABBREVIATION (up to 8 spaces)	TYPE	PRICE	BEGINNING	EXPECTED		LAG	EVEN	FAST	REAL*
2. Inservice	Inserv	Allowance of $20 per certified personnel. 100,000 certified personnel to receive training	$2,000,000	.20	100	1980				✓
3. District Administration	Dist Adm	Special Ed. supervisor(1)	$20,000							
		Part time clerical	5,000							
		Total	$25,000	50	128	1980		✓		
		Presently 50 supervisors, will need 128 to serve all districts								
4. State Administration	SEA Adm	Special Ed. consultant(1)	$20,000							
		Part-time clerical	5,000							
		Travel allowance	1,000							
		Total	$26,000	22	36	1980	✓			
		Presently 22 consultants, will need 36								

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WORKSHEET 6R: "REAL" DATA FOR NONSPECIFIC RELATED SERVICES

(Supplementary worksheet: Use only if the REAL phase-in pattern is selected to specify the precise service levels for each year in the planning period up to the expected service level year.)

NONSPECIFIC RELATED SERVICE (ABBREVIATION)	SERVICE LEVELS									
	Begin. Year 19 76	Year 2 19 77	Year 3 19 78	Year 4 19 79	Year 5 19 80	Year 6 19____	Year 7 19____	Year 8 19____	Year 9 19____	Year 10 19____
Qnsery	.20	.40	.60	.80	1.00					

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V. UNDERSTANDING THE REPORTS

This section describes the reports generated by SEPM. There are eighteen separate types of reports resulting from the data gathered in the foregoing input steps; seven display the array of input data and eleven show the impact of the inputs. A table of contents listing each of the report titles and giving page numbers is also provided.

The following discussion of the reports refers to the example, SEA PLAN. The sample reports are all based on the data found in the filled-in worksheets for SEA PLAN. The discussion indicates what to look for when reviewing the reports. It points out how the projections reflect various input data and assumptions as well as what impact these inputs have on different aspects of the special education program.

INPUT REPORTS

There are seven input reports summarizing the input worksheets used to gather the essential data. The input reports provide a listing of all input data elements (e.g., number of students being served during the beginning year) and planning assumptions (e.g., the expected student placement pattern). These reports provide a reference for checking the specific input values used, for tracing reasons for unusual results, and for making modifications for subsequent projections.

The following pages show the input reports for the example, SEA PLAN.

REPORT	REPORT TITLE	PAGE
INPUT 1	PLANNING PERIOD AND POPULATION	1
INPUT 2	CLASSIFICATION CATEGORIES	2
INPUT 3	INSTRUCTIONAL PROGRAMS	3
INPUT 4	STUDENT PLACEMENT PATTERN	5
INPUT 5	PROGRAM UNIT RATIOS	6
INPUT 6	SPECIFIC RELATED SERVICES	7
INPUT 7	NONSPECIFIC RELATED SERVICES	8
A - 1	NUMBER OF STUDENTS - BY CLASSIFICATION AND YEAR	9
A - 2	NUMBER OF STUDENTS - BY INSTRUCTIONAL PROGRAM AND YEAR	10
A - 3	NUMBER OF STUDENTS - BY INSTRUCTIONAL PROGRAM AND YEAR PER CLASSIFICATION	11
A - 4	NUMBER OF STUDENTS - BY CLASSIFICATION AND INSTRUCTIONAL PROGRAM PER YEAR	21
B - 1	NUMBER OF INSTRUCTIONAL PERSONNEL - BY CLASSIFICATION AND YEAR	26
B - 2	NUMBER OF INSTRUCTIONAL PERSONNEL - BY INSTRUCTIONAL PROGRAM AND YEAR	27
C - 1	COSTS - BY CLASSIFICATION AND YEAR	28
C - 2	COSTS - BY INSTRUCTIONAL PROGRAM AND YEAR	29
S - 1	SUMMARY: STUDENTS, INSTRUCTIONAL PERSONNEL, COSTS - BY CLASSIFICATION AND YEAR	30
S - 2	SUMMARY: STUDENTS, INSTRUCTIONAL PERSONNEL, COSTS - BY INSTRUCTIONAL PROGRAM AND YEAR	32
R S	SUMMARY: STUDENTS, PERSONNEL, COSTS - FOR RELATED SERVICES	34

THE PLANNING PERIOD EXTENDS FROM 76 - 77 TO 80 - 81 .

FOR AGE GROUP: SCHOOL AGE THE FOLLOWING POPULATION IS ESTIMATED:

76-77	2000000
77-78	1980000
78-79	1940000
79-80	1880000
80-81	1840000

THE INFLATION FACTOR IS 0.0600

	CLASSIFICATION	INCIDENCE RATE	BEGINNING NUMBER SERVED	FULL SERVICE YEAR	PHASE IN
1	EMR	0.02000	28000	78	EVEN
2	TMR	0.00300	3000	80	LAG
3	SLD	0.02000	22000	80	LAG
4	ED	0.01000	4500	80	LAG
5	VI	0.00100	1660	78	EVEN
6	HOH	0.00300	3150	79	FAST
7	DEAF	0.00100	1900	78	FAST
8	SPEECH	0.03000	39000	80	LAG
9	COHI	0.00500	4000	80	REAL
10	SEVERE	0.00200	800	80	LAG

THE TOTAL INCIDENCE RATE IS : 0.09500

	INSTRUCTIONAL PROGRAM	RESOURCES	QUANTITY	PRICE
1	CONSULTIVE SERVICES	TEACHER, M.A. + LEVEL	1.00	15000
1	CONSULTIVE SERVICES	INSTRUCTIONAL MATERIALS	1.00	300
1	CONSULTIVE SERVICES	TRAVEL ALLOWANCE	1.00	450
2	SPEECH & LANGUAGE INSTR	TEACHER, M.A. LEVEL	1.00	13500
2	SPEECH & LANGUAGE INSTR	INSTRUCTIONAL MATERIALS	1.00	300
2	SPEECH & LANGUAGE INSTR	CLASSROOM MAINT. & OP.	1.00	250
2	SPEECH & LANGUAGE INSTR	TRAVEL ALLOWANCE	1.00	450
3	SPECIALIST SERVICES	TEACHER, M.A. LEVEL	1.00	13500
3	SPECIALIST SERVICES	INSTRUCTIONAL MATERIALS	1.00	300
3	SPECIALIST SERVICES	CLASSROOM MAINT. & OP.	1.00	250
3	SPECIALIST SERVICES	TRAVEL ALLOWANCE	1.00	450
4	RESOURCE ROOM	TEACHER, M.A. LEVEL	1.00	13500
4	RESOURCE ROOM	INSTRUCTIONAL AIDE	0.50	6000
4	RESOURCE ROOM	INSTRUCTIONAL MATERIALS	1.00	400
4	RESOURCE ROOM	CLASSROOM MAINT. & OP.	1.00	500
5	SPECIAL CLASS	TEACHER, M.A. LEVEL	1.00	13500
5	SPECIAL CLASS	INSTRUCTIONAL AIDE	1.00	6000
5	SPECIAL CLASS	INSTRUCTIONAL MATERIALS	1.00	500
5	SPECIAL CLASS	CLASSROOM MAINT. & OP.	1.00	1000

6	HOMEBOUND & HOSPITAL	TEACHER, B.A. LEVEL	1.00	12000
6	HOMEBOUND & HOSPITAL	INSTRUCTIONAL MATERIALS	1.00	200
6	HOMEBOUND & HOSPITAL	TRAVEL ALLOWANCE	1.00	450
7	STATE SPECIAL SCHOOLS	AVERAGE TOTAL COST	1.00	8500
8	PUBLIC AGENCY PROGRAMS	AVERAGE EDUCATIONAL COST	1.00	5000
9	PRIVATE RESIDENTIAL PGMS	AVERAGE TOTAL COST	1.00	9000
10	PRIVATE DAY PROGRAMS	AVERAGE TUITION COST	1.00	3000

STUDENT PLACEMENT PATTERN - DECIMAL PERCENT

	YEAR PHASE	CONSULT	S & L	SPEC SVC	RESOURCE	SP CLASS	HOME	STATE SC	PUBLIC	PVT RES	PVT DAY
EMR	BEGIN	0.0	0.100	0.0	0.200	0.700	0.0	0.0	0.100	0.0	0.0
	EXPECTED 80 LAG	0.200	0.500	0.0	0.400	0.400	0.0	0.0	0.0	0.0	0.0
TMR	BEGIN	0.0	0.0	0.0	0.0	0.100	0.0	0.0	0.600	0.200	0.100
	EXPECTED 80 LAG	0.0	0.400	0.0	0.0	0.800	0.0	0.0	0.100	0.050	0.050
SLD	BEGIN	0.0	0.100	0.0	0.500	0.500	0.0	0.0	0.0	0.0	0.0
	EXPECTED 80 LAG	0.250	0.250	0.0	0.550	0.200	0.0	0.0	0.0	0.0	0.0
ED	BEGIN	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.100	0.300	0.200
	EXPECTED 79 EVEN	0.200	0.0	0.0	0.350	0.400	0.0	0.0	0.050	0.020	0.080
VI	BEGIN	0.0	0.0	0.100	0.0	0.200	0.0	0.800	0.0	0.0	0.0
	EXPECTED 80 LAG	0.0	0.0	0.400	0.0	0.400	0.0	0.300	0.0	0.0	0.0
HOH	BEGIN	0.0	0.500	0.0	0.100	0.300	0.0	0.100	0.0	0.0	0.0
	EXPECTED 80 LAG	0.0	0.700	0.0	0.250	0.100	0.0	0.050	0.0	0.0	0.0
DEAF	BEGIN	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
	EXPECTED 80 LAG	0.0	0.0	0.100	0.0	0.200	0.0	0.700	0.0	0.0	0.0
SPEECH	BEGIN	0.0	1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	EXPECTED 80 LAG	0.0	1.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COHI	BEGIN	0.0	0.100	0.0	0.0	0.300	0.300	0.0	0.0	0.100	0.300
	EXPECTED 80 LAG	0.0	0.400	0.400	0.0	0.400	0.300	0.0	0.0	0.0	0.100
SEVERE	BEGIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.600	0.400	0.0
	EXPECTED 79 FAST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.800	0.200	0.0

NUMBER OF STUDENTS PER PROGRAM UNIT

	CONSULT	S & L	SPEC SVC RESOURCE	SP CLASS	HOME	STATE SC	PUBLIC	PVT RES	PVT DAY
EMR	50	75	0	30	14	0	0	1	0	0
TMR	0	50	0	0	12	0	0	1	1	1
SLD	50	75	0	30	12	0	0	0	0	0
ED	50	0	0	20	10	0	0	1	1	1
VI	0	0	20	0	8	0	1	0	0	0
HOH	0	50	0	20	8	0	1	0	0	0
DEAF	0	0	20	0	8	0	1	0	0	0
SPEECH	0	75	0	0	0	0	0	0	0	0
COHI	0	50	20	0	10	10	0	0	1	1
SEVERE	0	0	0	0	0	0	0	1	1	0

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SPECIFIC RELATED SERVICES

SERVICE	UNIT PRICE	CASE LOAD	PERSONNEL	SERVICE LEVEL BEGIN	SERVICE LEVEL EXPECT	YEAR	PHASE IN
EMR							
VOC CONS	14000	100	1.00	0.0	0.200	80	LAG
THR							
TRANS	500	1	0.0	0.100	0.800	80	LAG
SLD							
ED							
PSYCH SV	500	1	0.0	0.100	0.200	80	REAL
VI							
LG PRINT	50	1	0.0	0.200	0.600	78	EVEN
MOBILITY	200	1	0.0	0.0	0.100	78	EVEN
HOH							
DEAF							
INTERP	200	1	0.0	0.0	0.100	79	FAST
SPEECH							
COHI							
PHY THER	720	1	0.0	0.100	0.300	80	LAG
OCC THER	360	1	0.0	0.0	0.100	80	LAG
TRANS	500	1	0.0	0.300	0.600	80	LAG
SEVERE							

NONSPECIFIC RELATED SERVICES

SERVICE	UNIT PRICE	PERSONNEL	SERVICE LEVEL BEGIN	SERVICE LEVEL EXPECT	YEAR	PHASE IN
ASSESS	66000	4.00	30.000	128.000	79	LAG
INSERV	2000000	0.0	0.200	1.000	80	REAL
DIST ADM	25000	1.00	50.000	128.000	80	EVEN
SEA ADM	26000	1.00	22.000	36.000	80	LAG

STUDENT PROJECTIONS

This series of reports shows how many students are being served by special education and what types of instructional programs are being provided. The information is presented for all years in the planning period.

Report A-1, Number of Students—By Classification and Year

This first report shows projections of the number of children to be served by their classification category. This represents an unduplicated count of children; the categories do not overlap because children have been grouped by primary handicap or major area of learning need. The calculation of the percentage of students served and the number remaining unserved is based on the incidence rate for each of the categories, as specified in Input Report 2.

The A-1 report shows the predicted growth (or decline) for each category of special education students. For example, in the SEA PLAN example, special education services for the TMR category began at 3,000 students and 50 percent served, moving to full service by 1980. At the full service year the percentage served equals 100 percent.

This report is useful as a means of testing the credibility of incidence rates. After looking at the number of students unserved, users may ask if these numbers are a reasonable reflection of their state's situation. If not, it may be appropriate to revise the incidence rates for certain categories and rerun the projections.

Report A-2, Number of Students—By Instructional Program and Year

This report shows projections of students by the type of instructional program they receive. This may be a duplicated count of students, since some students may be receiving more than one instructional program. To check the number of students receiving duplicate instructional services, the totals on this report can be compared with the unduplicated count totals in Report A-1.

Reading across Report A-2 provides a review of the overall direction in program growth anticipated. It is possible to see what happens to each instructional program over time, whether there is a growth in the program, a decline, or whether it remains steady.

For example, in the SEA PLAN, Consultive Services is a new program which is not offered during the beginning year, but which will grow in the future. Speech and Language Instruction shows a doubling in five years, while Private Residential Programs will be declining as more students move into public school programs.

Changes in the number of students in each instructional program are the result of two factors: a change in the total number who will be receiving services (compare 1976-77 with 1980-81 total number served) and the changing pattern of programs in which students are expected to be placed. In SEA PLAN, the Special Class shows overall program growth from 34,727 students to 39,192 students, even though a review of the placement patterns (Input Report 4) indicates a shift away from Special Classes, particularly in high incidence areas such as EMR and SLD. However, there is a corresponding movement of children from public and private agency programs into Special Classes.

Report A-3 Number of Students—By Instructional Program and Year For (Each) Classification

The A-3 series of reports provides similar information to A-2, except there is a separate report for each category of students. This gives a detailed picture of the expectations for each disability or learning need category, showing what instructional programs are utilized and the changes that occur over the planning period. (Only the EMR SEA PLAN A-3 Report is included here.)

The A-3 reports should be reviewed closely to see if the projected program direction is consistent with expectations. If not, users may wish to change the placement pattern inputs (Input Report 4) and rerun the projections.

Again, changes in the SEA PLAN example are a function of increasing numbers of students served (compare 1976-77 and 1980-81 in the A-1 report for a specific classification category) and the changing placement patterns as specified in Input Report 4. This can produce results seen in the SEA PLAN example for the EMR-Special Class. In this example, the total number served in this program rises at first (due to increasing total numbers served) and then declines in the later years (due to a declining percentage of EMR students being served in special classes).

Report A-4 Number of Students—By Classification and Instructional Program for (Each) Year

This series of reports provides year by year snapshots of the overall special education program, showing the number of students for each category in each instructional program. There is one report for every year in the planning period. Again, this may be a duplicate count of students, as some students receive instruction in more than one instructional program. (Only the 1980-81 SEA PLAN A-4 Report is included here.)

SCHOOL AGE

NUMBER OF STUDENTS -- BY CLASSIFICATION AND YEAR

CLASSIFICATION CATEGORIES		YEAR				
		76-77	77-78	78-79	79-80	80-81
EMR	NUMBER OF STUDENTS SERVED	28000	33660	38800	37600	36800
EMR	PERCENT OF STUDENTS SERVED	70	85	100	100	100
EMR	NUMBER OF STUDENTS UNSERVED	12000	5940	0	0	0
TMR	NUMBER OF STUDENTS SERVED	3000	3267	3783	4512	5520
TMR	PERCENT OF STUDENTS SERVED	50	55	65	80	100
TMR	NUMBER OF STUDENTS UNSERVED	3000	2673	2037	1128	0
SLD	NUMBER OF STUDENTS SERVED	22000	23562	26578	30832	36800
SLD	PERCENT OF STUDENTS SERVED	55	59	68	82	100
SLD	NUMBER OF STUDENTS UNSERVED	18000	16038	12222	6768	0
ED	NUMBER OF STUDENTS SERVED	4500	5989	8875	12972	18400
ED	PERCENT OF STUDENTS SERVED	22	30	46	69	100
ED	NUMBER OF STUDENTS UNSERVED	15500	13811	10525	5828	0
VI	NUMBER OF STUDENTS SERVED	1660	1812	1940	1880	1840
VI	PERCENT OF STUDENTS SERVED	83	91	100	100	100
VI	NUMBER OF STUDENTS UNSERVED	340	168	0	0	0
HOH	NUMBER OF STUDENTS SERVED	3150	4397	5167	5640	5520
HOH	PERCENT OF STUDENTS SERVED	52	74	89	100	100
HOH	NUMBER OF STUDENTS UNSERVED	2850	1543	653	0	0
DEAF	NUMBER OF STUDENTS SERVED	1900	1942	1940	1880	1840
DEAF	PERCENT OF STUDENTS SERVED	95	98	100	100	100
DEAF	NUMBER OF STUDENTS UNSERVED	100	38	0	0	0
SPEECH	NUMBER OF STUDENTS SERVED	39000	40689	43941	48504	55200
SPEECH	PERCENT OF STUDENTS SERVED	65	68	75	86	100
SPEECH	NUMBER OF STUDENTS UNSERVED	21000	18711	14259	7896	0
COHI	NUMBER OF STUDENTS SERVED	4000	4500	5500	7000	9200
COHI	PERCENT OF STUDENTS SERVED	40	45	57	74	100
COHI	NUMBER OF STUDENTS UNSERVED	6000	5400	4200	2400	0
SEVERE	NUMBER OF STUDENTS SERVED	800	1109	1707	2557	3680
SEVERE	PERCENT OF STUDENTS SERVED	20	28	44	68	100
SEVERE	NUMBER OF STUDENTS UNSERVED	3200	2851	2173	1203	0
TOTAL	NUMBER OF STUDENTS SERVED	108910	120927	138231	[illegible]	174800
TOTAL	PERCENT OF STUDENTS SERVED	57	64	75	[illegible]	100
TOTAL	NUMBER OF STUDENTS UNSERVED	81999	67182	46078	[illegible]	0

SCHOOL AGE NUMBER OF STUDENTS -- BY INSTRUCTIONAL PROGRAM AND YEAR

TYPE OF PROGRAM	YEAR				
	76-77	77-78	78-79	79-80	80-81
CONSULTIVE SERVICES	0	1661	5504	11731	20240
SPEECH & LANGUAGE INSTR	45975	51113	60724	73686	92552
SPECIALIST SERVICES	166	435	1087	2319	4600
RESOURCE ROOM	17365	20908	26892	33985	42780
SPECIAL CLASS	34727	39241	42667	41316	39192
HOMEBOUND & HOSPITAL	1200	1350	1650	2100	2760
STATE SPECIAL SCHOOLS	3543	3661	3465	2877	2116
PUBLIC AGENCY PROGRAMS	5530	6091	6295	5553	4416
PRIVATE RESIDENTIAL PGMS	2670	2590	2399	1546	1380
PRIVATE DAY PROGRAMS	2400	2528	2707	2614	2668
TOTAL	113576	129578	153390	177727	212704

SCHOOL AGE NUMBER OF STUDENTS -- BY INSTRUCTIONALPROGRAM AND YEAR FOR CLASSIFICATION *** EMR ***

TYPE OF PROGRAM	YEAR				
	76-77	77-78	78-79	79-80	80-81
CONSULTIVE SERVICES	0	673	2328	4512	7360
SPEECH & LANGUAGE INSTR	2800	4712	8536	12784	18400
SPECIALIST SERVICES	0	0	0	0	0
RESOURCE ROOM	5600	7405	10088	12032	14720
SPECIAL CLASS	19600	22552	23668	19552	14720
HOMEBOUND & HOSPITAL	0	0	0	0	0
STATE SPECIAL SCHOOLS	0	0	0	0	0
PUBLIC AGENCY PROGRAMS	2800	3029	2716	1504	0
PRIVATE RESIDENTIAL PGMS	0	0	0	0	0
PRIVATE DAY PROGRAMS	0	0	0	0	0
TOTAL	30800	38371	47336	50384	55200

SCHOOL AGE NUMBER OF STUDENTS -- BY CLASSIFICATION AND INSTRUCTIONAL PROGRAM FOR YEAR 80-81

TYPE OF PROGRAM	CLASSIFICATION CATEGORIES									
	EMR	TMR	SLD	ED	VI	HOH	DEAF	SPEECH	COHI	SEVERE
CONSULTIVE SERVICES	7360	0	9200	3680	0	0	0	0	0	0
SPEECH & LANGUAGE INSTR	18400	2208	9200	0	0	3864	0	55200	3680	0
SPECIALIST SERVICES	0	0	0	0	736	0	184	0	3680	0
RESOURCE ROOM	14720	0	20240	6440	0	1380	0	0	0	0
SPECIAL CLASS	14720	4416	7360	7360	736	552	368	0	3680	0
HOMEBOUND & HOSPITAL	0	0	0	0	0	0	0	0	2760	0
STATE SPECIAL SCHOOLS	0	0	0	0	552	276	1288	0	0	0
PUBLIC AGENCY PROGRAMS	0	552	0	920	0	0	0	0	0	2944
PRIVATE RESIDENTIAL PGMS	0	276	0	368	0	0	0	0	0	736
PRIVATE DAY PROGRAMS	0	276	0	1472	0	0	0	0	920	0
TOTAL	55200	7728	46000	20240	2024	6072	1840	55200	14720	3680

PERSONNEL PROJECTIONS

These reports are projections of the number of certified personnel (e.g., teachers, specialists) and the number of non-certified personnel (e.g., aides) needed to serve special education students in the manner shown in the preceding student projections. The total number of personnel required is the same for both Report B-1 and B-2, except for minor variations due to rounding.

Report B-1, Number of Instructional Personnel—By Classification and Year

This report shows the total number of personnel required to provide instructional programs for each category of students. The numbers reflect the personnel required for all types of instructional programs. In the SEA PLAN, the number of certified personnel needed to serve SLD students in 1980-81 is the sum of a portion of those instructional personnel who serve SLD students in Consultive Services, Speech and Language, Resource Room and Special Class programs. (See Report A-4 1980-81 for annual program detail.)

The personnel projections are based on the number of students served per instructional unit, as specified in Input Report 5. Since personnel is the major cost component of special education, the inputs should be reviewed thoroughly, particularly if costs appear excessive.

Report B-2, Number of Instructional Personnel—By Instructional Program and Year

This report provides personnel information similar to that in B-1, but shows it by instructional program rather than by category of students. This gives the total number of personnel required by type of program, without regard to the category of students served.

In the SEA PLAN, the 230 Specialist Services personnel in 1980-81 are providing instruction to Deaf, VI and COHI students. (See A-4 1980-81 for annual program detail.)

No personnel are shown for the State Special Schools, Public Agency Programs, Private Residential Programs and Private Day Programs. This is due to the fact that in Input Report 3 an average cost per student, not specific resources, was specified. In such cases, no personnel can be projected for these programs. The total personnel in the example are those for the public schools only. If the number of personnel required for non-public school programs is desired, then it is necessary to specify the personnel required to serve one student in these programs. This would be a fractional amount (e.g., .1 teacher per student if the average class size in the program were 10).

SCHOOL AGE

NUMBER OF INSTRUCTIONAL PERSONNEL -- BY CLASSIFICATION AND YEAR

CLASSIFICATION	YEAR				
	76-77	77-78	78-79	79-80	80-81
EMR					
CERTIFIED	1624	1934	2188	2058	1934
NON-CERTIFIED	1493	1734	1859	1597	1296
TMR					
CERTIFIED	25	49	107	218	412
NON-CERTIFIED	25	46	98	196	368
SLD					
CERTIFIED	1313	1368	1455	1538	1595
NON-CERTIFIED	1100	1121	1136	1094	950
ED					
CERTIFIED	158	263	467	798	1132
NON-CERTIFIED	146	227	384	632	897
VI					
CERTIFIED	50	62	81	101	129
NON-CERTIFIED	42	50	63	75	92
HOH					
CERTIFIED	166	225	250	251	215
NON-CERTIFIED	126	166	173	154	103
DEAF					
CERTIFIED	0	6	18	34	55
NON-CERTIFIED	0	5	15	28	46
SPEECH					
CERTIFIED	520	543	586	647	736
NON-CERTIFIED	0	0	0	0	0
COHI					
CERTIFIED	248	296	401	585	902
NON-CERTIFIED	120	140	182	252	368
SEVERE					
CERTIFIED	0	0	0	0	0
NON-CERTIFIED	0	0	0	0	0
TOTAL					
CERTIFIED	4104	4746	5553	6230	7110
NON-CERTIFIED	3052	3489	3910	4028	4120

SCHOOL AGE

NUMBER OF INSTRUCTIONAL PERSONNEL -- BY INSTRUCTIONAL PROGRAM AND YEAR

TYPE OF PROGRAM	YEAR				
	76-77	77-78	78-79	79-80	80-81
CONSULTIVE SERVICES					
CERTIFIED	0	33	111	235	405
NON-CERTIFIED	0	0	0	0	0
SPEECH & LANGUAGE INSTR					
CERTIFIED	626	703	839	1026	1299
NON-CERTIFIED	0	0	0	0	0
SPECIALIST SERVICES					
CERTIFIED	8	22	54	116	230
NON-CERTIFIED	0	0	0	0	0
RESOURCE ROOM					
CERTIFIED	593	724	947	1227	1557
NON-CERTIFIED	298	364	474	615	780
SPECIAL CLASS					
CERTIFIED	2757	3129	3437	3416	3343
NON-CERTIFIED	2757	3129	3437	3416	3343
HOMEBOUND & HOSPITAL					
CERTIFIED	120	135	165	210	276
NON-CERTIFIED	0	0	0	0	0
STATE SPECIAL SCHOOLS					
CERTIFIED	0	0	0	0	0
NON-CERTIFIED	0	0	0	0	0
PUBLIC AGENCY PROGRAMS					
CERTIFIED	0	0	0	0	0
NON-CERTIFIED	0	0	0	0	0
PRIVATE RESIDENTIAL PGMS					
CERTIFIED	0	0	0	0	0
NON-CERTIFIED	0	0	0	0	0
PRIVATE DAY PROGRAMS					
CERTIFIED	0	0	0	0	0
NON-CERTIFIED	0	0	0	0	0
TOTAL					
CERTIFIED	4104	4746	5553	6230	7110
NON-CERTIFIED	3055	3493	3911	4031	4123

COST PROJECTIONS

These reports show costs of the special education instructional program in two ways: by classification category of students and by instructional program. The total costs for both reports are the same except for minor differences due to rounding.

Report C-1 Costs—By Classification and Year

This report provides projections of the costs to provide instructional programs for each category of students. The total costs are shown both in constant dollars and in inflated dollars. The inflation rate is that specified in Input Report 1. The dollar amounts in the body of the report for each category of students are shown in constant dollars.

In SEA PLAN, the C-1 report shows the costs for serving some disability categories declining over time. The reason for this can be found in the changes in the expected pattern of services. For example, the costs for EMR students decrease substantially from 1978-79 to 1980-81. This is due to a shift of these students out of more expensive public agency and special class programs into less expensive resource rooms and consultive service programs. (See the A-3 EMR Report for program detail.)

Report C-2 Costs—By Instructional Program and Year

The C-2 Report projects costs by type of instructional program. Also shown in this report is the price per unit of each instructional program. This is the sum of the prices specified in Input Report 3.

Again, as in C-1, total costs are given in both constant and inflated dollars, while the individual program costs are in constant dollars only.

SCHOOL AGE

COSTS -- BY CLASSIFICATION AND YEAR
(COSTS IN THOUSANDS OF DOLLARS)

CLASSIFICATION	YEAR				
	76-77	77-78	78-79	79-80	80-81
EMR	47190	54392	57330	47716	36482
TMR	15825	16360	16938	16617	14438
SLD	26063	27001	28371	29340	29299
ED	20335	21794	24465	24357	34552
VI	12286	12775	12302	9942	7160
HOH	5897	7889	8471	7979	6112
DEAF	16150	16133	15361	13782	12044
SPEECH	7540	7873	8497	9381	10672
COHI	11354	12377	14117	16032	17720
SEVERE	5280	6917	10223	14829	21344
TOTAL (CONSTANT $)	167920	183511	196075	189975	189823
TOTAL (INFLATED $)	167920	194521	220309	226262	239646

SCHOOL AGE

COSTS -- BY INSTRUCTIONAL PROGRAM AND YEAR
(COSTS IN THOUSANDS OF DOLLARS)

TYPE OF PROGRAM	PRICE PER UNIT	YEAR 76-77	77-78	78-79	79-80	80-81
CONSULTIVE SERVICES	15750	0	519	1748	3701	6378
SPEECH & LANGUAGE INSTR	14500	9077	10193	12165	14877	18835
SPECIALIST SERVICES	14500	116	319	783	1682	3335
RESOURCE ROOM	17400	10318	12597	16477	21349	27091
SPECIAL CLASS	21000	57897	65709	72177	71736	70203
HOMEBOUND & HOSPITAL	12650	1518	1707	2087	2656	3491
STATE SPECIAL SCHOOLS	8500	30115	31118	29452	24454	17986
PUBLIC AGENCY PROGRAMS	5000	27650	30455	31475	27765	22080
PRIVATE RESIDENTIAL PGMS	9000	24030	23310	21591	13914	12420
PRIVATE DAY PROGRAMS	3000	7200	7584	8121	7842	8004
TOTAL (CONSTANT $)		167921	183511	196076	189976	189823
TOTAL (INFLATED $)		167921	194521	220310	226263	239646

SUMMARY PROJECTIONS

Two summary reports of the special education instructional programs are presented. They provide information on students, certified personnel, and costs. All of the data shown in these reports have been presented in previous reports, but these summary reports pull the major components together.

Again, total costs and personnel are the same for both reports (except for differences caused by rounding). The S-2 report shows a duplicate student count, due to students enrolled in more than one type of instructional program.

Report S-1 Summary: Students, Instructional Personnel, Costs—By Classification and Year

The S-1 Report shows summary information grouped according to category of students.

Report S-2 Summary: Students, Instructional Personnel, Costs—By Program and Year

This report presents summary information grouped according to type of instructional program.

SCHOOL AGE

SUMMARY: STUDENTS, INSTRUCTIONAL PERSONNEL, COSTS -- BY CLASSIFICATION AND YEAR
(COSTS IN THOUSANDS OF DOLLARS)

CLASSIFICATION	YEAR				
	76-77	77-78	78-79	79-80	80-81
EMR					
STUDENTS	28000	33660	38800	37600	36800
CERTIFIED PERSONNEL	1624	1934	2188	2058	1934
COSTS (CONSTANT)	47190	54392	57330	47716	36482
TMR					
STUDENTS	3000	3267	3783	4512	5520
CERTIFIED PERSONNEL	25	49	107	218	412
COSTS (CONSTANT)	15825	16360	16938	16617	14438
SLD					
STUDENTS	22000	23562	26578	30832	36800
CERTIFIED PERSONNEL	1313	1368	1455	1538	1595
COSTS (CONSTANT)	26063	27001	28371	29340	29299
ED					
STUDENTS	4500	5989	8875	12972	18400
CERTIFIED PERSONNEL	158	263	467	798	1132
COSTS (CONSTANT)	20335	21794	24465	24357	34552
VI					
STUDENTS	1660	1812	1940	1880	1840
CERTIFIED PERSONNEL	50	62	81	101	129
COSTS (CONSTANT)	12286	12775	12302	9942	7160
HOH					
STUDENTS	3150	4397	5167	5640	5520
CERTIFIED PERSONNEL	166	225	250	251	215
COSTS (CONSTANT)	5897	7889	8471	7979	6112
DEAF					
STUDENTS	1900	1942	1940	1880	1840
CERTIFIED PERSONNEL	0	6	18	34	55
COSTS (CONSTANT)	16150	16133	15361	13782	12044
SPEECH					
STUDENTS	39000	40689	43941	48504	53200
CERTIFIED PERSONNEL	520	543	586	647	736
COSTS (CONSTANT)	7560	7873	8497	9381	10672

CONI					
STUDENTS	4000	4500	5500	7000	9200
CERTIFIED PERSONNEL	248	296	401	585	902
COSTS (CONSTANT)	11354	12377	14117	16032	17720
SEVERE					
STUDENTS	800	1109	1707	2557	3680
CERTIFIED PERSONNEL	0	0	0	0	0
COSTS (CONSTANT)	5280	6917	10223	14829	21344
TOTAL					
STUDENTS	108010	120927	138231	153377	174800
CERTIFIED PERSONNEL	4104	4746	5553	6230	7110
COSTS (CONSTANT)	167920	183511	196075	189975	189823
COSTS (INFLATED)	167920	194521	220309	226262	239646

SCHOOL AGE

SUMMARY: STUDENTS, INSTRUCTIONAL PERSONNEL, COSTS -- BY PROGRAM AND YEAR
(COSTS IN THOUSANDS OF DOLLARS)

TYPE OF PROGRAM	YEAR				
	76-77	77-78	78-79	79-80	80-81
CONSULTIVE SERVICES					
STUDENTS	0	1661	5504	11731	20240
CERTIFIED PERSONNEL	0	33	111	235	405
COSTS (CONSTANT)	0	519	1748	3701	6378
SPEECH & LANGUAGE INSTR					
STUDENTS	45975	51113	60724	73686	92552
CERTIFIED PERSONNEL	626	703	839	1026	1299
COSTS (CONSTANT)	9077	10193	12165	14877	18835
SPECIALIST SERVICES					
STUDENTS	166	435	1087	2319	4600
CERTIFIED PERSONNEL	8	22	54	116	230
COSTS (CONSTANT)	116	319	783	1682	3335
RESOURCE ROOM					
STUDENTS	17365	20908	26892	33985	42780
CERTIFIED PERSONNEL	593	724	947	1227	1557
COSTS (CONSTANT)	10318	12597	16477	21349	27091
SPECIAL CLASS					
STUDENTS	34727	39241	42667	41316	39192
CERTIFIED PERSONNEL	2757	3129	3437	3416	3343
COSTS (CONSTANT)	57897	65709	72177	71736	70203
HOMEBOUND & HOSPITAL					
STUDENTS	1200	1350	1650	2100	2760
CERTIFIED PERSONNEL	120	135	165	210	276
COSTS (CONSTANT)	1518	1707	2087	2656	3491
STATE SPECIAL SCHOOLS					
STUDENTS	3543	3661	3465	2877	2116
CERTIFIED PERSONNEL	0	0	0	0	0
COSTS (CONSTANT)	30115	31118	29452	24454	17986
PUBLIC AGENCY PROGRAMS					
STUDENTS	5530	6091	6295	5553	4416
CERTIFIED PERSONNEL	0	0	0	0	0
COSTS (CONSTANT)	27650	30455	31475	27765	22080

PRIVATE RESIDENTIAL PGMS					
STUDENTS	2670	2590	2399	1546	1380
CERTIFIED PERSONNEL	0	0	0	0	0
COSTS (CONSTANT)	24030	23310	21591	13914	12420
PRIVATE DAY PROGRAMS					
STUDENTS	2400	2528	2707	2614	2668
CERTIFIED PERSONNEL	0	0	0	0	0
COSTS (CONSTANT)	7200	7584	8121	7842	8004
TOTAL					
STUDENTS	113576	129578	153390	177727	212704
CERTIFIED PERSONNEL	4104	4746	5553	6230	7110
COSTS (CONSTANT)	167921	183511	196076	189976	189823
COSTS (INFLATED)	167921	194521	220310	226263	239646

RELATED SERVICES PROJECTIONS

Due to the varied nature of related services, this report is presented in summary form only.

Report RS Summary: Students, Personnel, Costs for Related Services

For each related service specified in Input Reports 6 and 7, the projections provide:

Number of students served
Number of certified personnel required (if specified in the input resources)
Costs of the service in constant dollars

Following the specific related services (those identified with particular categories of students) are the nonspecific related services. In SEA PLAN these are Assessment, Inservice, District Administration, and SEA Administration. No students are shown for these services since they are provided for all students. Personnel requirements are projected if they were specified in Input Report 7. For example, the number of district administrative personnel grows from 50 to 128 over the planning period.

Total costs are for both specific and nonspecific related services, and they appear in both constant and inflated dollars.

SCHOOL AGE

SUMMARY: STUDENTS, PERSONNEL, COSTS FOR RELATED SERVICES
(COSTS IN THOUSANDS OF DOLLARS)

CLASSIFICATION	YEAR				
	76-77	77-78	78-79	79-80	80-81
EMR					
VOC CONS					
STUDENTS	0	673	2327	4511	7359
PERSONNEL	0	7	23	45	74
COSTS	0	98	322	630	1036
TMR					
TRANS					
STUDENTS	300	555	1172	2346	4416
PERSONNEL	3	0	0	0	0
COSTS	150	277	586	1173	2208
ED					
PSYCH SV					
STUDENTS	450	658	1242	2205	3679
PERSONNEL	0	0	0	0	0
COSTS	225	329	621	1102	1839
VI					
LG PRINT					
STUDENTS	331	724	1164	1128	1104
PERSONNEL	0	0	0	0	0
COSTS	16	36	58	56	55
MOBILITY					
STUDENTS	0	90	194	188	184
PERSONNEL	0	0	0	0	0
COSTS	0	18	38	37	36
DEAF					
INTERP					
STUDENTS	0	88	148	188	184
PERSONNEL	0	0	0	0	0
COSTS	0	17	29	37	36
COHI					
PHY THER					
STUDENTS	400	540	879	1539	2760
PERSONNEL	0	0	0	0	0
COSTS	288	388	632	1108	1987

OCC THER					
STUDENTS	0	44	165	420	920
PERSONNEL	0	0	0	0	0
COSTS	0	15	59	151	331
TRANS					
STUDENTS	1200	1484	2144	3359	5520
PERSONNEL	0	0	0	0	0
COSTS	600	742	1072	1679	2760
ASSESS					
STUDENTS	0	0	0	0	0
PERSONNEL	120	186	316	512	512
COSTS	1980	3057	5213	8448	8448
INSERV					
STUDENTS	0	0	0	0	0
PERSONNEL	0	0	0	0	0
COSTS	399	799	1200	1600	2000
DIST ADM					
STUDENTS	0	0	0	0	0
PERSONNEL	50	70	89	109	128
COSTS	1250	1737	2225	2712	3200
SEA ADM					
STUDENTS	0	0	0	0	0
PERSONNEL	22	24	27	31	36
COSTS	572	608	681	790	936
TOTAL COST					
CONSTANT $	5480	8121	12736	19523	24872
INFLATED $	5480	8608	14310	23252	31400

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VI. USING THE PROJECTIONS

SEPM - A TOOL FOR POLICY ANALYSIS

SEPM has been developed to assist special education planners and policy makers in planning for the provision of instructional programs and related services to handicapped students. SEPM does this by raising and making explicit the important issues, assumptions, and decisions concerning special education and then projecting their consequences.

As a tool for policy analysis, the greatest value of SEPM comes from two primary uses:

1. Improving and refining the basic assumptions regarding future special education programs.
2. Comparing alternative programs and answering "what if" questions.

Rarely will the first set of projections developed be sufficient for policy analysis. States using SEPM have invariably found that their initial projections needed modifications. Sometimes the assumptions proved to be unrealistic and required revision. In other cases, the results represented more of a dream than a practical plan for special education. An example might be a case in which total program costs were initially shown to triple in two years, which would be beyond both state and local fiscal capability.

Additionally, some of the data which are input into SEPM may be more reliable than others. For example, one may have confidence in the accuracy of the beginning number of students served (based on recent child count information), but may have much less confidence in the placement pattern of students five years in the future. In this case, it may be desirable to try several different placement patterns to see what impact the changes from the initial assumptions would have. The placement pattern that seems most realistic would then be selected.

In short, development of appropriate projections for planning will probably require several iterations as the data and assumptions are made successively more realistic and accurate.

The essence of policy analysis is the comparison of alternative approaches. SEPM was designed to facilitate such efforts. The alternatives may be either large (e.g., introduction of a new instructional program) or small (e.g., a decrease in the student/teacher ratio in special classes by 1). Use of SEPM in this fashion will allow a planner to approximate and analyze the effects of potential program changes prior to their implementation. For example, the cost of a proposal to have an instructional aide in every special classroom could be estimated by running the model both without an aide and with an aide in the special classroom, and then comparing the projected costs for the two runs. The projections in the "with aide" run would also indicate the number of aides that would be required to staff the classrooms.

States have derived the greatest benefit from SEPM by going beyond a single set of projections. The use of SEPM to simulate different approaches or program changes has permitted testing of the probable impacts of these alternatives in terms of students to be served, personnel requirements, and costs.

FREQUENT POLICY ISSUES

Some of the more frequently encountered situations which the projections make apparent are described below. Also described are some suggestions for possible changes in input data and assumptions.

1. **The projections show a large number of unserved children in the beginning year (Report A-1).**

   Each classification category on Report A-1 should be examined individually. In some instances a large proportion of unserved children in a category may be reasonable (e.g., historical lack of appropriate programs or fairly recent recognition of a handicapping condition). These cases should remain as they are.

In other cases, however, a large number of unserved children is not an accurate representation of the actual situation in the state. This is particularly true in the more obvious handicapping conditions. For example, one state found its their initial set of projections that only 7 percent of the orthopedically handicapped, 13 percent of the emotionally handicapped, and 60 percent of the deaf students were shown as served. Moreover, this was after an extensive and successful two year childfind program had been operating in the state. Obviously something was amiss, since the state department staff knew of no unidentified and unserved deaf or orthopedically handicapped children of school age and there were no emotionally disturbed students on waiting lists.

The cause of these distortions was found in the values for the incidence rates of these classification categories that had been used in the initial projections. SEPM calculates the number of unserved students in a particular classification based on the incidence rate of all students of that classification expected to require special education. The state had selected values which approximated national values. These turned out to be too high for this particular state.

The solution lay in revising the initial incidence rates for selected categories to reflect the conditions found in the state (Input Report 2). This was done, the model was rerun with the new incidence rates, and new projections were obtained. The new projections indicated students with these handicapping conditions were being served at much higher levels, which was consistent with the actual situation in the state.

2. **The growth in numbers of students served appears unrealistic—too fast or too slow (Report A-1).**

The annual change in numbers of students served for each classification category on Report A-1 should be reviewed. Are there unrealistic projections of increases in students served from year to year (e.g., doubling in one year)? Is any category not increasing at a rapid enough rate? Are there still numbers of unserved students beyond a desired target year?

The annual growth in numbers of students served in each classification category is primarily controlled by two inputs—the full service year and the phase-in pattern (Input Report 2). Moving the full service year to a later year will lengthen the time allowed to reach full service and will decrease the annual change in number of students served. The reverse is also true: moving the full service year forward will increase the annual change in number of students served. Changing from a LAG to an EVEN or FAST phase-in pattern will increase the growth in number of students served in the earlier years, but decrease the annual growth in the later years. The reverse of this is true also.

3. **The pattern of growth or reduction in numbers of students in various instructional programs appears unrealistic or impractical (Report A-2).**

The overall change in number of students served by each instructional program is shown in Report A-2. The details of the instructional programs utilized by each classification category are provided in Reports A-3. Examine these reports for growth and reduction trends among programs. Is it understandable why the programs are changing as they do? Do the changes appear possible? Realistic? Desirable? Do the changes and trends reflect the philosophy and expectations about the future direction of special education in the state? For example, movement toward implementation of a least restrictive placement approach would be represented by: 1) a shift of students out of institutional and other non-public school settings and into public school programs; and 2) a shift of some students from special classes to resource rooms and assistance in regular classrooms.

The changes in instructional programs are controlled by the beginning and expected student placement patterns (Input Report 4). The beginning values should represent present practice and should only be changed based on more accurate information. The expected values are assumptions and, therefore, may need adjustment from their initial values to produce the desired outcomes.

To make modifications in the growth or reduction of numbers of students in various instructional programs requires changes in the expected student placement values for each classification category involved. For any instructional programs that appear to have too many students, the expected percentage of students should be lowered. However, this should be done selectively after an individual analysis of each classifcation category involved. For programs that appear to have too few students, the expected percentage of students should be increased, again on a selective basis.

4. **The personnel requirements given in the projections are infeasible—either more than could be trained over the next few years or an excess of certain types of personnel is indicated (Report B-1 and B-2).**

Introduction of new programs or large-scale shifts of students among programs can cause a great and rapid demand for certain types of instructional personnel. If it is felt that sufficient personnel may not be available to implement the initial plan, then there are several alternatives to consider which may alleviate the projected shortages:

1. Increase the number of students served per unit in each of the instructional programs where shortages may exist.

2. Increase the use of instructional aides in selected instructional programs and raise the allowable number of students served per unit in these programs.

3. Rearrange the choice of instructional programs toward those which can serve more students per unit. This will have the greatest impact among the classification categories with the higher incidence rates.

4. Delay the date for reaching the expected placement pattern.

5. Use a slower phase-in pattern (e.g., LAG instead of EVEN).

6. Use temporary certification to increase the available supply of personnel.

In other instances, a decrease in the number of instructional personnel is projected for those serving certain classification categories or instructional programs. In this case, it may be appropriate to retrain instructional personnel from a declining area to work in an area of growth (e.g., special class teachers being retrained to become resource room teachers).

5. **The projected costs to serve handicapped children are too high or the state does not have sufficient money to fund the program (Reports C-1 and C-2).**

In the general case, SEPM projects the <u>total</u> cost to serve all anticipated handicapped children, not just the state's share of those costs. Therefore, the projected costs shown may include costs to local, state, and federal agencies. However, SEPM can be used to project the state costs only; in this case it would then estimate the required state support. (This capability is described later in this section.) It is important to know whether the projected costs represent total costs or only those costs to a single agency (e.g., state).

If the projected costs (total or state) are too high, there are a variety of means of lowering them. In each case, the procedure requires analyzing the input assumptions and changing them if warranted. The assumptions to be modified are primarily those of a programmatic nature. The following examples illustrate this process and the changes that may be used to lower costs.

Incidence Rates	Reduce selective rates
Instructional Programs	Increase use of aides and raise number of students per program unit in appropriate programs
Resources	Eliminate certain resources from instructional programs
Prices	Lower estimated prices or allowances for certain resource items
Student Placement	Shift students toward lower cost programs
Students per Program Unit	Increase number selectively
Inflation Rate	Lower the estimate. (This will affect the inflated dollar projections only.)

ANSWERING THE "WHAT IF" QUESTIONS

Frequently, the analysis of a special education program or consideration of alternatives to the current program raise a host of "what if" questions. These are questions such as:

> What if the incidence rate for certain classification categories were lowered (or raised)? How many fewer (or more) students would be estimated to need special education? How many fewer (or more) teachers would be needed? How much would the projected costs be reduced (or raised)?
>
> What if the average class size for special classes were lowered by two students per class? If the average number of students served by a resource room teacher were raised by five, would this compensate (in terms of cost) for the change in special class size?
>
> What if the average teacher salary in special education were $1500 more than originally estimated? What would the added cost be?

What if an instructional aide were added to all resource rooms? How many aides would be needed? How much would they cost?

What if regular teachers, after a successful inservice training program, were able to serve more mildly handicapped students than initially assumed? How would they affect the number of instructional personnel required in other special education programs? How would the costs be impacted?

What if the actual inflation rate in the future were greater (or less) than the initial value chosen?

SEPM offers an opportunity to ask and answer these and many other "what if" questions easily and quickly. The results will provide valuable data for making tradeoffs among alternative approaches and reaching good policy decisions. For example, a decrease of one in an average student-teacher ratio may raise the total costs by 8 percent, but a doubling of the average instructional materials allowance per child may increase the total costs by only 1 percent. Information of this type, which indicates the impact of proposed alternatives, is essential when comparing alternative strategies for serving handicapped children.

The technique used by SEPM to answer the "what if" questions is termed sensitivity analysis. The basic procedure is straightforward:

1. A set of projections is developed which represents the best estimate of the future special education program. This will be called the "base case." It will probably be the initial set of projections, with some modifications to make them more realistic.

2. The "what if" questions to be asked are formulated.

3. The input data in the base case relating to the "what if" questions are identified.

4. New values for the input data elements to be changed are selected.

5. The projections are rerun using the new input values.

6. The projections for the new values are then compared with those of the base case. The differences between the two sets of projections are caused by the changes in the input data values and represent the answers to the "what if" questions.

Several examples are provided below to illustrate this analytical procedure and to indicate its many possible uses. The base case in all examples is the SEA PLAN set of projections.

Example 1: Incidence Rates

What if the incidence rate of SLD were changed from .02 to .03 and that of ED from .01 to .015?

(This changes the overall incidence rate from .095 to .11.)

The changes, from the Summary Report (S-1), are shown below for the last year of the planning period, 1980-81. Costs are shown in thousands of dollars.

	Base Case	New Incidence	Differences (New—Base)
SLD			
Students	36,800	55,200	18,400
Certified Personnel	1,595	2,392	797
Costs (Constant)	$ 29,299	$ 43,943	$14,644
ED			
Students	18,400	27,600	9,200
Certified Personnel	1,132	1,697	565
Costs (Constant)	$ 34,552	$ 51,812	$17,260
TOTAL			
Students	174,800	202,400	27,600
Certified Personnel	7,110	8,472	1,362
Costs (Constant)	$189,823	$221,727	$31,904
Costs (Inflated)	$239,646	$279,923	$40,277

The projections show that by raising the SLD incidence rate, there are 18,400 more students projected to be served. This would require 797 more teachers and would cost (in constant dollars) an additional $14,644,000. Raising the ED incidence rate would project 9,200 more students to be served, 565 additional teachers needed, and an increased cost of $17,260,000. Furthermore, by 1980-81 inflation would have raised the combined costs of these changes from $31,904,000 to $40,277,000.

Example 2: Students Served by Program Unit

What if the students served by every special class were reduced by two and the students served by every resource room increased by five?

The changes from the Summary Report (S-2) are shown below for the last year of the planning period, 1980-81. Costs are shown in thousands of dollars.

	Base Case	Changed # Students Served Per Unit	Differences (Changed # -Base)
RESOURCE ROOM			
Students	42,780	42,780	---
Certified Personnel	1,557	1,312	(245)
Costs (Constant)	$ 27,091	$ 22,828	$(4,263)
SPECIAL CLASS			
Students	39,192	39,192	---
Certified Personnel	3,343	4,061	718
Costs (Constant)	$ 70,203	$ 85,281	$15,078
TOTAL			
Students	212,704	212,704	---
Certified Personnel	7,110	7,583	473
Costs (Constant)	$189,823	$200,638	$10,815
Costs (Inflated)	$239,646	$253,298	$13,652

The projections indicate that increasing the number of students served by a resource room unit would decrease the need for 245 teachers and would save $4,263,000. Decreasing the size of a special class, however, would require an additional 718 teachers and an extra $15,078,000. The increase in the number of students served per unit in the resource rooms, therefore, does not compensate for the decrease in the size of the special classes. The net cost is $10,815,000 in constant dollars which, through inflation, would rise to $13,652,000. It would take an increase of at least 15 in the number of students served by a resource room unit to balance a decrease of 2 in special class size.

Example 3: Instructional Aides

What if the use of instructional aides in resource rooms were increased from one-half to one per unit?

The results from the Personnel Report (B-2) and the Cost Report (C-2) are shown below for the last year of the planning period (1980-81).

PERSONNEL	Base Case	One Full Aide	Differences (Aide - Base)
Resource Room			
Certified	1,557	1,557	---
Non-Certified	780	1,557	777
COSTS (in thousands)			
Resource Room	$ 27,091	$31,762	$ 4,671
Total (Constant $)	$189,823	$194,494	$ 4,671
Total (Inflated $)	$239,646	$245,486	$ 5,840

The projections indicate that increasing the use of aidesin resource rooms to one aide per unit would require an additional 777 aides, and cost an additional $4,671,000 in constant dollars or $5,840,000 inflated dollars.

Example 4: Inflation Factor

What if the future inflation rate averaged 7.5% instead of the 6% originally assumed?

The results of this change in the last year of the planning period, (1980-81) are shown below (in thousands of dollars).

	Base Case	New Inflation Factor	Differences (New inflation-Base)
Total (Constant $)	$189,823	$189,823	—
Total (Inflated $)	$239,646	$253,502	$13,856

With a higher inflation factor it would take an additional $13,856,000 to purchase the same special education program in the last year of the planning period.

OTHER USES

SEPM has a great deal of versatility in the types of projections which it can provide. Several states have used this capability to go beyond the basic model to develop specialized projections for their specific needs.

1. Projections of State Aid Based on State Funding Formulas

   In these cases SEPM projected the estimated state funding requirements rather than the total costs of special education. This was accomplished by using the relevant aspects of the states' funding formulas as inputs for the resources and prices data. The formulas which were modeled have included:

   a. Regular and weighted ADA allotments
   b. Weighted FTE cost factors
   c. Special education personnel reimbursement
   d. Funding based on methods of service delivery

2. Different Classification Categories

   In addition to planning by the traditional disability categories, several states used SEPM to develop projections by classifying students according to their learning needs. Different sets of classification categories were developed which were based on the severity and type of learning needs. These categories were used in the model instead of disability categories.

3. Phase in/Phase Out

One state used SEPM to simulate the effects of a new state plan which was to be implemented over eight years. The totally new program—new classifications, programs, services, and funding methods—was started at a low beginning level and phased in over this period. The prior program—old classifications, programs, services and funding methods—was simultaneously phased out over this same period. SEPM incorporated both of these programs with all of their different aspects into a single set of projections.